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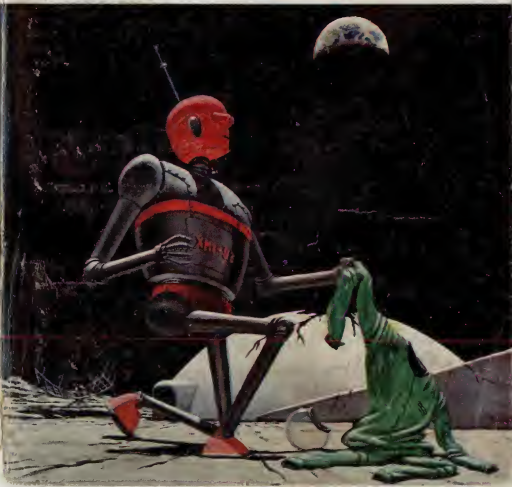
Galaxy

THE STARSLOGGERS
by HARRY HARRISON

A MAN OF THE
RENAISSANCE
by WYMAN GUIN



TO AVENGE MAN by **LESTER DEL REY**



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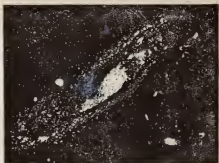
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Galaxy

MAGAZINE

ALL STORIES NEW

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SPACEMEN & LAWMEN

Let's say that we get to Mars in the next few years and learn that, in spite of everything, there really *are* Martians. The way we learn this is that our spacecraft cushions its soft landing on a Martian canal-tender's hut; and as a direct consequence of this mishap grave events follow, for all of which the Martian government holds us responsible. Next thing you know the President of the United States is summoned to defend himself before the Third Marslaw Folk Conciliatorium.

Clearly the President needs a lawyer — and a space lawyer,

at that. Where is he going to find one?

As a matter of fact, he won't have very far to look — not by the time we land on Mars, and indeed not even today. Space law is already a recognized specialty; the most recent proof of this to cross our desk is a fat, good-looking volume entitled *Law and Public Order in Space* (Yale University Press), written by three law professors named McDougal, Lasswell and Vlasic. (Professors McDougal and Lasswell are on the Yale faculty. Professor Vlasic, however, shows just how far this thing has gone.

**Secrets
entrusted
to a
few**



The Unpublished Facts of Life

THERE are some things that cannot be generally told — *things you ought to know*. Great truths are dangerous to some—but factors for *personal power and accomplishment* in the hands of those who understand them. Behind the tales of the miracles and mysteries of the ancients, lie centuries of their secret probing into nature's laws—their amazing discoveries of the *hidden processes of man's mind*, and the *mastery of life's problems*. Once shrouded in mystery to avoid their destruction by mass fear and ignorance, these facts remain a useful heritage for the thousands of men and women who privately use them in their homes today.

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with his academic connection: his school is McGill's Institute of Air and Space Law.)

What is most interesting about *Law and Public Order in Space* is that it is not science fiction. It is solid law; which means that it rests firmly on statute and precedent, and although you might not think it, both statute and precedent exist copiously right now. The authors have found any number of points of law concerning marine vessels and aircraft, for example, which must clearly apply to *Gemiri* and *Vostok* as well. How can nations determine who owns what when Mars is colonized? The precedents come from Antarctica. What happens if there are Martians, and they object? A whole budget of law on such questions as American relations with the Apaches give the answers. The authors of this tome have considered nearly as many possibilities as Heinlein and Van Vogt—and have found legal matter concerning everything from a collision between orbiting satellites to the trick question of contact with superintelligent aliens who wish to send us missionaries preaching their One True Religion.

It's interesting reading. (Quotes a number of familiar names as authorities, by the way—Arthur C. Clarke, Lester del Rey, Willy

Ley, C. S. Lewis, etc.) Maybe we should all start boning up right now . . .

If not on space law, then how about the sort of law, or at least governmental policy, that scientists are making right now?

What makes us think of that is another book, this one called *Scientists and National Policy Making* (Columbia University Press), a symposium edited by Robert Gilpin and Christopher Wright on how scientists are helping to shape government policies today.

There are plenty of them, some 4,000 in that National Bureau of Standards alone. What do they do? Why, they advise, mostly. But their advice has much force behind it, since it is rather clear that most laymen don't—and can't—know enough about certain rather large scientific questions to be entitled to an opinion without such advice. This is a step forward—as the book points out, in the half-century after the National Academy of Sciences was founded in 1863 it was consulted by the War Department on only five subjects, including "Tests for the Purity of Whiskey" and how to preserve paint on Army knapsacks.

There have been changes since then! —FREDERIK POHL

THE STARSLOGGERS

by HARRY HARRISON

ILLUSTRATED BY GIUNTA

*Left, right! Left, right! Keep
in line—don't talk back to NCOs
—and, above all, don't ask why!*

I

Bill never realized that sex was the cause of it all. If the sun that morning had not been burning so warmly in the brassy sky of Phigerinadon II, and if he had not glimpsed the sugar-white and barrel-wide backside of Inga-Maria Calyphigia while she bathed in the stream, he might have paid more attention to his plowing than to the burning pressures of heterosexuality. He would have driven his furrow to the far side of the hill before the seductive music sounded along

the road. He might never have heard it and his life would have been very, very different. But he did hear it and dropped the handles of the plow that was plugged into the robomule, turned and gaped.

It was indeed a fabulous sight. Leading the parade was a one-robot-band, twelve-feet high and splendid in its great black busby that concealed the hi-fi speakers. The golden pillars of its legs stamped forward as its thirty articulated arms sawed, plucked and fingered at a dazzling variety of instruments. Martial music

poured out in wave after inspiring wave and even Bill's thick peasant feet stirred in their clodhoppers as the shining boots of the squad of soldiers crashed along the road in perfect unison. Medals jingled on the manly swell of their scarlet-clad chests. And there could certainly be no nobler sight in all the world. To their rear marched the sergeant, gorgeous in his braid and brass, thickly clustered medals and ribbons, sword and gun, girdled gut and steely eye which sought out Bill where he stood gawking over the fence. The grizzled head nodded in his direction, the steel-trap mouth bent into a friendly smile and there was a conspiratorial wink. Then the little legion was past, and hurrying behind in their wake came a huddle of dust-covered ancillary robots, hopping and crawling or rippling along on treads. As soon as these had gone by Bill climbed clumsily over the split-rail fence and ran after them. There were no more than two interesting events every four years here, and he was not going to miss what hopefully promised to be a third.

A crowd had already gathered in the market square when Bill hurried up, and they were listening to an enthusiastic band concert. The robot hurled itself into the glorious measures of

Star Troopers to the Skies Avaunt, and thrashed its way through *Rockets Rumble* and almost demolished itself in the tumultuous rhythm of *Sappers at the Pithead Digging*. It pursued this last tune so strenuously that one of its legs flew off, rising high into the air, but was caught dexterously before it could hit the ground and the music ended with the robot balancing on its remaining leg beating time with the detached limb. It also, after an ear-fracturing peal on the basses, used the leg to point across the square to where a tri-di screen and refreshment booth had been set up. The troopers had vanished into the tavern and the recruiting sergeant stood alone among his robots, beaming a welcoming smile.

“Now hear this! Free drinks for all, courtesy of the Emperor, and some lively scenes of jolly adventure in distant climes to amuse you while you sip,” he called in an immense and leathery voice.

Most of the people drifted over, Bill in their midst, though a few embittered and elderly draft-dodgers slunk away between the houses. Cooling drinks were shared out by a robot with a spigot for a navel and an inexhaustible supply of plastic

glasses in one metallic hip.

Bill sipped his happily while he followed the enthralling adventures of the space troopers in full color with sound effects and stimulating subsonics. There was battle and death and glory though it was only the Chingers who died: troopers only suffered neat little wounds in their extremities that could be covered easily by small bandages. And while Bill was enjoying this, Recruiting Sergeant Grue was enjoying him, his little piggy eyes ruddy with greed as they fastened onto the back of Bill's neck.

This is the one! he chortled to himself while, unknowingly, his yellowed tongue licked at his lips. He could already feel the weight of the bonus money in his pocket. The rest of the audience were the usual mixed bag of overage men, fat women, beardless youths and other unenlistables. All except this broad-shouldered, square-chinned, curly-haired chunk of electronic-cannon fodder. With a precise hand on the controls the sergeant lowered the background subsonics and aimed a tight-beam stimulator at the back of his victim's head. Bill writhed in his seat, almost taking part in the glorious battles unfolding before him.

As the last chord died and the

screen went blank the refreshment robot pounded hollowly on its metallic chest and bellowed DRINK! DRINK! DRINK! The sheeplike audience swept that way, all except Bill who was plucked from their midst by a powerful arm.

"Here, I saved some for you," the sergeant said, passing over a prepared cup so loaded with dissolved ego-reducing drugs that they were crystallizing out at the bottom. "You're a fine figure of a lad and to my eye seem a cut above the yokels here. Did you ever think of making your career in the forces?"

"I'm not the military type, shargeant . . ." Bill chomped his jaws and spat to remove the impediment to his speech, puzzled at the sudden fogginess in his thoughts. Though it was a tribute to his physique that he was even conscious after the volume of drugs and sonics that he had been plyed with. "Not the military type. My fondest ambition is to be of help in the best way I can, in my chosen career as a Technical Fertilizer Operator and I'm almost finished with my correspondence course . . ."

"That's a crappy job for a bright lad like you," the sergeant said while clapping him on the arm to get a good feel of his biceps. Rock. He resisted



GRUNTA - 64

the impulse to pull Bill's lip down and take a quick peek at the condition of his back teeth. Later. "Leave that kind of job to those that like it. No chance of promotion. While a career in the troopers has no top. Why Grand-Admiral Pflunger came up through the rocket tubes, as they say, from recruit trooper to grand-admiral. How does that sound?"

"It sounds very nice for Mr. Pflunger but I think fertilizer operating is more fun. Gee — I'm feeling sleepy. I think I'll go lie down."

"Not before you've seen this, just as a favor to me of course," the sergeant said, cutting in front

of him and pointing to a large book held open by a tiny robot. "Clothes make the man and most men would be ashamed to be seen in a crummy looking smock like that thing draped around you or wearing those broken canal boats on their feet. Why look like *that* when you can look like *this*?"

Bill's eyes followed the thick finger to the color plate in the book where a miracle of misapplied engineering caused his own face to appear on the illustrated figure dressed in trooper-red. The sergeant flipped the pages and on each plate the uniform was a little more gaudy, the rank higher. The last one



was that of a grand-admiral and Bill blinked at his own face under the plumed helmet, now with a touch of crowfeet about the eyes and sporting a handsome and gray-shot moustache, but still undeniably his own.

"That's the way you will look," the sergeant murmured into his ear, "once you have climbed the ladder of success. Would you like to try a uniform on? Of course you would like to try a uniform on. Tailor!"

When Bill opened his mouth to protest the sergeant put a large cigar into it, and before he could get it out the robot tailor had rolled up, swept a curtain bearing arm about him and

stripped him naked. "Hey! Hey . . .!" he said.

"It won't hurt," the sergeant said, poking his great head through the curtain and beaming at Bill's muscled form. He poked a finger into a pectoral (rock) and then withdrew.

"Ouch!" Bill said as the tailor extruded a cold pointer and jabbed him with it, measuring his size. Something went *chunk* deep inside its tubular torso and a brilliant red jacket began to emerge from a slot in the front. In an instant this was slipped onto Bill and the shining golden buttons buttoned. Luxurious gray moleskin

trousers were pulled on next, then gleaming black knee-length boots. Bill staggered a bit as the curtain was whipped away and a powered full-length mirror rolled up.

"Oh how the girls love a uniform," the sergeant said, "and I can't blame them."

A memory of the vision of Inga-Maria Calyphigia's matched white moons obscured Bill's sight for a moment, and when it had cleared he found he was grasping a stylo and was about to sign the form that the recruiting sergeant held before him.

"No," Bill said, a little amazed at his own firmness of mind. "I don't really want to. Technical Fertilizer Operator . . ."

"And not only will you receive this lovely uniform, an enlistment bonus and a free medical examination, but you will be awarded these handsome medals." The sergeant took a flat box, offered to him on cue by a robot, and opened it to display a glittering array of ribbons and bangles. "This is the Honorable Enlistment Award," he intoned gravely, pinning a jewel-encrusted nebula, pendant on chartreuse, to Bill's wide chest. "And the Emperor's Congratulatory Gilded Horn, The Forward to Victory Starburst, the Praise Be Given Salutation of the Mothers of the Victorious Fallen and the Ever-

flowing Cornucopia which does not mean anything but it looks nice and can be used to carry contraceptives." He stepped back and admired Bill's chest which was now adangle with ribbons, shining metal and gleaming paste gems.

"I just couldn't," Bill said. "Thank you anyway for the offer, but . . ."

The sergeant smiled, prepared even for this eleventh hour resistance, and pressed the button on his belt that actuated the programmed hypno-coil in the heel of Bill's new boot. The powerful neural current surged through the contacts and Bill's hand twitched and jumped, and when the momentary fog had lifted from his eyes he saw that he had signed his name.

"But . . ."

"Welcome to the Space Troopers," the sergeant boomed, smacking him on the back (trapezius like rock) and relieving him of the stylo. "FALL IN!" in a larger voice, and the recruits stumbled from the tavern.

"What have they done to my son!" Bill's mother screeched, coming into the market square, clutching at her bosom with one hand and towing his baby brother Charlie with the other. Char-

lie began to cry and wet his pants.

"Your son is now a trooper for the greater glory of the Emperor," the sergeant said, pushing his slack-jawed and round-shouldered recruit squad into line.

"No! it can't be . . ." Bill's mother sobbed, tearing at her graying hair. "I'm a poor widow he's my sole support . . . you cannot . . .!"

"Mother . . ." Bill said, but the sergeant shoved him back into the ranks.

"Be brave, madam," he said humbly.

"There can be no greater glory for a mother." He dropped a large newly minted coin into her hand. "Here is the enlistment bonus, the Emperor's shilling. I know he wants you to have it. **ATTENTION!**"

With a clash of heels the graceless recruits braced their shoulders and lifted their chins. Much to his surprise, so did Bill.

"RIGHT TURN!"

In a single, graceful motion as the command robot relayed the order to the hypno-coil in every boot. **FORWARD MARCH!** and they did in perfect rhythm, so well under control that, try as hard as he could Bill could neither turn his head nor wave a last good-by to his mother. She vanished behind him and one last, anguished wail

cut through the thud of marching feet.

"Step up the count to 130," the sergeant ordered, glancing at the watch which was set under the nail of his little finger. "Just ten miles to the station and we'll be in camp tonight, my lads."

The command robot moved its metronome up one notch and the tramping boots conformed to the smarter pace and the men began to sweat. By the time they had reached the copter station it was nearly dark, their red paper uniforms hung in shreds, the gilt had been rubbed from their potmetal buttons and the surface charge that repelled the dust from their thin plastic boots had leaked away. They looked as ragged, weary, dusty and miserable as they felt.

II

It wasn't the recorded bugle playing reveille that woke Bill, but the supersonics that streamed through the metal frame of his bunk that shook him until the fillings vibrated from his teeth. He sprang to his feet and stood there shivering in the gray of dawn. Because it was summer the floor was refrigerated: no mollycoddling of the men in Camp Leon Trotsky. The pallid, chilled figures of the other recruits loomed up on every side.

When the soul-shaking vibrations died away they dragged their thick sackcloth and sandpaper fatigue uniforms from their bunks, pulled them hastily on, jammed their feet into the great, purple recruit boots and staggered out into the dawn.

"I am here to break your spirit," a voice, rich with menace, told them, and they looked up and shivered even more as they faced the chief demon in this particular hell.

Petty Chief Officer Deathwish Drang was a specialist from the tips of the angry spikes of his hair to the corrugated stamping soles of his mirror-like boots. He was wide shouldered and lean hipped, while his long arms hung, curved like some horrible anthropoid, the knuckles of his immense fists scarred from the merciless breaking of thousands of teeth.

It was impossible to look at this detestable form and imagine that it issued from the tender womb of a woman. He could never have been born; he must have been built to order by the government. Most terrible of all was the head. The face! The hairline was scarcely a fingers-width above the black tangle of the brows that were set like a rank growth of foliage at the rim of the black pits that concealed the eyes—visible only as baleful

red gleams in the stygian darkness. A nose, broken and crushed, squatted above the mouth that was like a knife slash in the taut belly of a corpse, while from between the lips issued the great, white fangs of the canine teeth, at least two inches long, that rested in grooves on the lower lip.

"I am Petty Chief Officer Deathwish Drang and you will call me 'sir' or 'm'lord.'" He began to pace grimly before the row of terrified recruits. "I am your father and your mother and your whole universe and your dedicated enemy, and very soon I will have you regretting the day you were born. I will crush your will. When I say frog you will jump. My job is to turn you into troopers, and troopers have discipline. Discipline simply means unthinking subservience, loss of free will, absolute obedience. That is all I ask . . ."

He stopped before Bill, who was not shaking quite as much as the other recruits and scowled.

"I don't like your face. One month of Sunday KP."

"Sir . . ."

"And a second month for talking back."

He waited, but Bill was silent. He had already learned his first lesson on how to be a good

trooper. Keep your mouth shut. Deathwish paced on.

"Right now you are nothing but horrible, sordid, flabby pieces of debased civilian flesh. I shall turn that flesh to muscle, your wills to jelly, your minds to machines. You will become good troopers or I will kill you. Very soon you will be hearing stories about me, vicious stories about how I killed and ate a recruit who disobeyed me."

He halted and stared at them. Slowly the coffin-lid lips parted in an evil travesty of a grin, while a drop of saliva formed at the tip of each whitened tusk.

"That story is true."

A moan broke from the row of recruits and they shook as though a chill wind had passed over them. The smile vanished.

"We will run to breakfast now as soon as I have some volunteers for an easy assignment. Can any of you drive a helicar?"

Two recruits hopefully raised their hands and he beckoned them forward. "Alright, both of you, mops and buckets behind that door. Clean out the latrine while the rest are eating. You'll have a better appetite for lunch."

That was Bill's second lesson on how to be a good trooper: never volunteer.

The days of recruit training passed with a horribly lethargic

speed. With each day conditions became worse and Bill's exhaustion greater. This seemed impossible, but it was nevertheless true. A large number of gifted and sadistic minds had designed it to be that way. The recruits' heads were shaved for uniformity and their genitalia painted with orange antiseptic to control the endemic crotch crickets. The food was theoretically nourishing but incredibly vile and when, by mistake, one batch of meat was served in an edible state it was caught at the last moment and thrown out and the cook reduced two grades. Their sleep was broken by mock gas attacks and their free time filled with caring for their equipment.

The seventh day was designated as a day of rest but they all had received punishments, like Bill's KP, and it was as any other day. On this, the third Sunday of their imprisonment, they were stumbling through the last hour of the day before the lights were extinguished and they were finally permitted to crawl into their casehardened bunks. Bill pushed against the weak force field that blocked the door, cunningly designed to allow the desert flies to enter but not leave the barracks, and dragged himself in. After fourteen hours of KP his legs vibra-

ted with exhaustion and his arms were wrinkled and pallid as a corpse's from the soapy water. He dropped his jacket to the floor, where it stood stiffly, supported by its burden of sweat, grease and dust, and dragged his shaver from the foot locker. In the latrine he bobbed his head around trying to find a clear space on one of the mirrors.

All of them had been heavily stenciled in large letters with such inspiring messages as KEEP YOUR WUG SHUT — THE CHINGERS ARE LISTENING and IF YOU TALK THIS MAN MAY DIE. He finally plugged the shaver in next to WOULD YOU WANT YOUR SISTER TO MARRY ONE? and centered his face in the O in ONE. Black-rimmed, bloodshot eyes stared back at him as he ran the buzzing machine over the underweight planes of his jaw. It took more than a minute for the meaning of the question to penetrate his fatigue-drugged brain.

"I haven't got a sister," he grumbled peevishly. "And if I did why should she want to marry a lizard anyway?" It was a rhetorical question but it brought an answer from the far end of the room, from the last shot tower in the second row.

"It doesn't mean *exactly* what it says — it's just there to make

us hate the dirty enemy more."

Bill jumped, he had thought he was alone in the latrine, and the razor buzzed spitefully and gouged a bit of flesh from his lip.

"Who's there? Why are you hiding?" he snarled, then recognized the huddled dark figure and the many pairs of boots. "Oh, it's only you Eager." His anger drained away and he turned back to the mirror.

Eager Beager was so much a part of the latrine that you forgot he was there. A moon-faced, eternally smiling youth whose apple red cheeks never lost their glow, and whose smile looked so much out of place here in Camp Leon Trotsky that everyone wanted to kill him until they remembered that he was mad.

He had to be mad because he was always eager to help his buddies and had volunteered as permanent latrine orderly. Not only that, but he liked to polish boots and had offered to do those of one after another of his buddies until now he did the boots for every man in the squad every night. Whenever they were in the barracks Eager Beager could be found crouched at the end of the thrones that were his personal domain, surrounded by heaps of shoes and polishing industriously, his face wreathed in

smiles. He would still be there after lights-out, working by the light of a burning wick struck in a can of polish and was usually up before the others in the morning, finishing his voluntary job and still smiling. Sometimes, when the boots were very dirty, he worked right through the night. The kid was obviously insane but no one turned him in because he did such a good job on the boots and they all prayed that he wouldn't die of exhaustion until recruit training was finished.

"Well if that's what they want to say, why don't they just say 'hate the dirty enemy more'," Bill complained. He jerked his thumb at the far wall where there was a poster labeled **KNOW THE ENEMY**. It featured a life-size illustration of a Chinger, a seven foot high saurian that looked very much like a scale covered, four armed, green kangaroo with an alligator's head. "Whose sister would want to marry a thing like that anyway? And what would a thing like that want to do with a sister, except maybe eat her?"

Eager put a last buff on a purple toe and picked up another boot. He frowned for a brief instant to show what a serious thought this was. "Well you see, gee — it doesn't mean a *real* sister. It's just part of psychological

warfare. We have to win the war. To win the war we have to fight hard. In order to fight hard we have to have good soldiers. Good soldiers have to hate the enemy. That's the way it goes. The Chingers are the only non-human race that has been discovered in the galaxy that has gone beyond the aboriginal level, so naturally we have to wipe them out."

"What the hell do you mean *naturally*? I don't want to wipe anyone out. I just want to go home and be a Technical Fertilizer Operator."

"Well I don't mean you personally, of course — gee!" Eager opened a fresh can of polish with purple-stained hands and dug his fingers into it. "I mean the human race, that's just the way we do things. If we don't wipe them out they'll wipe us out. Of course they say that war is against their religion and they will only fight in defense, and they have never made attacks, yet. But we can't believe them even though it is true. They might change their religion or their minds some day and then where would we be? The best answer is to wipe them out now."

Bill unplugged his razor and washed his face in the tepid, rusty water. "It still doesn't seem to make sense. Alright, so the

sister I don't have doesn't marry one of them. But how about that — " he pointed to the stenciling on the duckboards, KEEP THIS SHOWER CLEAR — THE ENEMY CAN HEAR. "Or that — " The sign above the urinal that read BUTTON FLIES — BEWARE SPIES. "Forgetting for the moment that we don't have any secrets here worth traveling a mile to hear, much less twenty-five light-years — how could a Chinger possibly be a spy? What kind of make-up would disguise a seven foot lizard as a recruit? You couldn't even disguise one to look like Deathwish Drang, though you could get pretty close —"

The lights went out and, as though using his name had summoned him like a devil from the pit, the voice of Deathwish blasted through the barracks.

"Into your sacks! Into your sacks! Don't you lousy bowbs know there's a war on!" he rumbled menacingly.

Bill stumbled away through the darkness of the barracks where the only illumination was the red glow from Deathwish's eyes. He fell asleep the instant his head touched his carborundum pillow and it seemed that only a moment had elapsed before reveille sent him hurtling from his bunk.

At breakfast, while he was

painfully cutting his coffee-substitute into chunks small enough to swallow, the telenews reported heavy fighting in the Beta Lyra sector with mounting losses. A groan ripples through the mess hall when this was announced, not because of any excess of patriotism, but because any bad news would only make things worse for them. They did not know how this would be arranged, but they were positive it would be. They were right.

Since the morning was a bit cooler than usual the Monday parade was postponed until noon when the ferro-concrete drill ground would have warmed up nicely and there would be the maximum number of heat prostration cases. But this was just the beginning. From where Bill stood at attention near the rear he could see that the air-conditioned canopy was up on the reviewing stand. That meant brass. The trigger guard of his atomic rifle dug a hole into his shoulder and a drop of sweat collected then dripped from the tip of his nose. Out of the corners of his eyes he could see the steady ripple of motion as men collapsed here and there among the massed ranks of thousands, and were dragged to the waiting ambulances by alert corpsmen. Here they were laid in the shade

of the vehicles until they revived and could be urged back to their positions in the formation with other staggering recruits.

Then the band burst into *Spacemen Ho and Chingers Vanguished!* and the broadcast signal to each boot heel snapped the ranks to attention at the same instant and the thousands of rifles flashed in the sun. The commanding general's staff car — this was obvious from the two stars painted on it — pulled up beside the reviewing stand and a tiny, round figure moved quickly through the furnacelike air to the comfort of the enclosure. Bill had never seen him any closer than this, at least from the front, though once while he was returning from late KP he had spotted the general getting into his car near the camp theatre. At least Bill thought it was him, but all he had seen was a brief rear view. Therefore, if he had a mental picture of the general, it was of a large backside superimposed on a teeny ant-like figure.

He thought of most officers in these general terms, since the men of course had nothing to do with officers during their recruit training. Bill had had a good glimpse of a 2nd lieutenant once, near the orderly room, and he knew he had a face. And there had been a medical officer who

hadn't been more than thirty yards away, who had lectured them on venereal disease, but Bill had been lucky enough to sit behind a post and had promptly fallen asleep.

After the band shut up, the anti-G loudspeakers floated out over the troops and the general addressed them. He had nothing to say that anyone cared to listen to and he closed with the announcement that because of losses in the field their training program would be accelerated, which was just what they had expected. Then the band played some more and they marched back to the barracks, changed into their haircloth fatigues and marched — doubletime now — to the range where they fired their atomic rifles at plastic replicas of Chingers that popped up out of holes in the ground. Their aim was very bad until Deathwish Drang popped out of a hole and every trooper switched to full automatic and hit with every charge fired from every gun, which is a very hard thing to do. Then the smoke cleared and they stopped cheering and started sobbing when they saw that it was only a plastic replica of Deathwish, now torn to tiny pieces, and the original appeared behind them and gnashed its tusks and gave them all a full month's KP.

"The human body is a wonderful thing," Bowb Brown said, a month later, when they were sitting around a table in the Lowest Ranks Klub eating plastic skinned sausages stuffed with road sweepings and drinking watery warm beer. Bowb Brown was a thoatherder from the plains, which is why they called him Bowb since everyone knows just what thoatherders do with their thoats. He was tall, thin and bowlegged, his skin burnt to the color of ancient leather. He rarely talked, being more used to the eternal silence of the plains broken only by the eerie cry of the restless thoat. He was a great thinker since the one thing he had had plenty of was time to think in. He could worry a thought for days, even weeks, before he mentioned it aloud, and while he was thinking about it nothing could disturb him. He even let them call him Bowb without protesting: call any other trooper bowb and he would hit you in the face. Bill and Eager and the other troopers from X squad sitting around the table all clapped and cheered, as they always did when Bowb said something.

"Tell us more, Bowb!"

"It can still talk — I thought it was dead!"

"Go on — why is the body a wonderful thing?"

They waited in expectant silence while Bowb managed to tear a bite from his sausage and, after ineffectual chewing, swallowed it with an effort that brought tears to his eyes. He eased the pain with a mouthful of beer and spoke.

"The human body is a wonderful thing — because if it doesn't die — it lives."

They waited for more until they realized that he was finished, then they sneered.

"Boy, are you full of bowb!"

"Sign up for O.C.S.!"

"Yeah — but what does it mean?"

Bill knew what it meant, but didn't tell them.

There were only half as many men in the squad as there had been the first day. One man had been transferred. All the others were sick or in the mental hospital, or discharged for the convenience of the government as being too crippled for active service. Or dead. The survivors, after losing every ounce of weight not made up of bone or essential connective tissue, had put back the lost weight in the form of muscle and were now completely adapted to the rigors of Camp Leon Trotsky, though they still loathed it.

Bill marveled at the efficiency

of the system. Civilians had to fool around with examinations, grades, retirement benefits, seniority and a thousand other factors that limited the efficiency of the workers. But how easily the troopers did it! They simply killed off the weaker ones and used the survivors. He respected the system. Though he still loathed it.

“You know what I need, I need a woman,” Ugly Uggesway said.

“Don’t talk dirty,” Bill told him promptly, since he had been brought up correctly.

“I’m not talking dirty!” Ugly whined. “It’s not like I said I wanted to re-enlist or that I thought Deathwish was human or anything like that. I just said I need a woman. Don’t we all?”

“I need a drink,” Bowb Brown said as he took a long swig from his glass of dehydrated reconstituted beer, shuddered, then squirted it out through his teeth in a long stream onto the concrete, where it instantly evaporated.

“Affirm, affirm,” Ugly agreed, bobbing his mat-haired warty head up and down. “I need a woman *and* a drink.” His whine became almost plaintive. “After all, what else is there to want in the troopers outside of out?”

They thought about that a

long time, but could think of nothing else that anyone really wanted. Eager Beager looked out from under the table where he was surreptitiously polishing a boot and said that he wanted more polish, but they ignored him. Even Bill, now that he put his mind to it, could think of nothing he really wanted other than this inextricably linked pair. He tried hard to think of something else, since he had vague memories of wanting other things when he had been a civilian, but nothing else came to mind.

“Gee, it’s only seven more weeks until we get our first pass,” Eager said from under the table, then screamed as everyone kicked him at once.

But slow as subjective time crawled by, the objective clocks were still operating and the seven weeks did pass by and eliminate themselves one by one. Busy weeks filled with all the essential recruit training courses: bayonet drill, small arms training, short arm inspection, grey-pfing, orientation lectures, drill, communal singing and the Articles of War. These last were read with dreadful regularity twice a week and were absolute torture because of the intense somnolence they brought on.

At the first rustle of the scratchy, monotonous voice from the tape player heads would be-

gin to nod. But every seat in the auditorium was wired with an EEG that monitored the brain waves of the captive troopers. As soon as the shape of the Alpha wave indicated transition from consciousness to slumber a powerful jolt of current would be shot into the dozing buttocks, jabbing the owner painfully awake.

The musty auditorium was a dimly lit torture chamber, filled with the droning dull voice punctuated by the sharp screams of the electrified, the sea of nodding heads abob here and there with painfully leaping figures.

No one ever listened to the terrible executions and sentences announced in the Articles for the most innocent of crimes. Everyone knew that they had signed away all human rights when they enlisted. The itemizing of what they had lost interested them not in the slightest. What they really were interested in was counting the hours until they would receive their first pass.

The ritual by which this reward was begrudgingly given was unusually humiliating, but they expected this and merely lowered their eyes and shuffled forward in the line, ready to sacrifice any remaining shards of their self-respect in exchange for the

crumpled scrap of plastic. This rite finished, there was a scramble for the monorail train whose track ran on electrically charged pillars, soaring over the thirty-foot high barbed wire, crossing the quicksand beds, then dropping into the little farming town of Leyville.

At least it had been an agricultural town before Camp Leon Trotsky had been built and sporadically, in the hours when the troopers weren't on leave, it followed its original agrarian bent. The rest of the time the grain and feed stores shut down and the drink and knock shops opened. Many times the same premises were used for both functions. A lever would be pulled when the first of the leave party thundered out of the station and grain bins became beds, salesclerks pimps, cashiers retained their same function — though the prices went up — while counters would be racked with glasses to serve as bars. It was to one of these establishments, a mortuary-cum-saloon, that Bill and his friends went.

"What'll it be, boys?" the ever-smiling owner of the Final Resting Bar and Grill asked.

"Double shot of embalming fluid," Bowb Brown told him.

"No jokes," the landlord said, the smile vanishing for a second as he took down a bottle on

which the garish label **REAL WHISKY** had been pasted over the etched in **EMBALMING FLUID**. "Any trouble I call the MPs." The smile returned as money struck the counter. "Name your poison, gents."

They sat around a long, narrow table as thick as it was wide with brass handles on both sides, and let the blessed relief of ethyl alcohol trickle a path down their dust-lined throats.

"I never drank before I came into the service," Bill said, draining four fingers neat of Old Kidney Killer and held his glass out for more.

"**Y**ou never had to," Ugly said, pouring.

"That's for sure," Bowb Brown said, smacking his lips with relish and raising a bottle to his lips again.

"Gee," Eager Beager said, sipping hesitantly at the edge of his glass, "It tastes like a tincture of sugar, wood chips, various esters and a number of higher alcohols."

"Drink up," Bowb said incoherently around the neck of the bottle. "All them things is good for you."

"Now I want a woman," Ugly said and there was a rush as they all jammed in the door trying to get out at the same time, until someone shouted *Look!* and they

turned to see Eager still sitting at the table.

"Woman!" Ugly said enthusiastically, in the tone of voice you say Dinner! in when you are calling a dog. The knot of men stirred in the doorway and stamped their feet. Eager didn't move.

"Gee — I think I'll stay right here," he said, his smile simpler than ever. "But you guys run along."

"Don't you feel well, Eager?"

"Feel fine."

"Ain't you reached puberty?"

"Gee . . ."

"What you gonna do here?"

Eager reached under the table and dragged out a canvas grip. He opened it to show that it was packed with great, purple boots. "I thought I'd catch up on my polishing."

They walked slowly down the wooden sidewalk, silent for the moment. "I wonder if there is something wrong with Eager?" Bill asked, but no one answered him. They were looking down the rutted street, at a brilliantly illuminated sign that cast a tempting, ruddy glow.

SPACEMEN'S REST it said. **CONTINUOUS STRIP SHOW** and **BEST DRINKS** and better **PRIVATE ROOMS FOR GUESTS AND THEIR FRIENDS**. They walked faster. The front wall of the Space-

man's Rest was covered with shatterproof glass cases filled with tri-di pix of the fully dressed (bangle and double stars) entertainers, and further in with pix of them nude (debangled with fallen stars). Bill stayed the quick sound of panting by pointing to a small sign almost lost among the tumescent wealth of mammaries.

OFFICERS ONLY it read.

"Move along," an MP grated and poked at them with his electronic nightstick. They shuffled on.

The next establishment admitted men of all classes, but the cover charge was 77 credits, more than they all had between them. After that the **OFFICERS ONLY** began again until the pavement ended and all the lights were behind them.

"What's that?" Ugly asked at the sound of murmured voices from a nearby darkened street. Peering closely they saw a line of troopers that stretched out of sight around a distant corner. "What's this?" he asked the last man in the line.

"Lower ranks cathouse. Two credits, two minutes. And don't try to buck the line, bowb. On the back, on the back."

They joined up instantly and Bill ended up last, but not for long. They shuffled forward slow-

ly and other troopers appeared and cued up behind him. The night was cool and he took many life-preserving slugs from his bottle. There was little conversation and what there was died as the red-lit portal loomed ever closer. It opened and closed at regular intervals and one by one Bill's buddies slipped in to partake of its satisfying, though rapid, pleasures. Then it was his turn and the door started to open and he started to step forward. Suddenly sirens started screaming and a large MP with a great fat belly jumped between Bill and the door.

"Emergency recall. Back to the base you men!" it barked.

Bill howled a strangled groan of frustration and leaped forward, but a light tap with the electronic nightstick sent him reeling back with the others. He was carried along, half stunned, with the shuffling wave of bodies while the sirens moaned and the artificial northern lights in the sky spelled out **TO ARMS!!!!** in letters of flame each a hundred miles long. Someone put his hand out, holding Bill up as he started to slide under the trampling purple boots. It was his old buddy, Ugly, carrying a satiated smirk and he hated him and tried to hit him. But before he could raise his fist they were swept into a monorail car, hurtl-

ed through the night and disgorged back in Camp Leon Trotsky. He forgot his anger when the gnarled claws of Deathwish Drang dragged them from the crowd.

"Pack your bags," he rasped. "You're shipping out."

"They can't do that to us—we haven't finished our training."

"They can do whatever they want, and they usually do. A glorious space battle has just been fought to its victorious conclusion and there are over four million casualties, give or take a hundred thousand. Replacements are needed, which is you. Prepare to board the transports immediately if not sooner."

"We can't—we have no space gear! The supply room..."

"All of the supply personnel have already been shipped out."

"Food..."

"The cooks and KP pushers are already spacebound. This is an emergency. All unessential personnel are being sent out. Probably to die." He twanged a tusk coyly and watched them with his loathsome grin. "While I remain here in peaceful security to train your replacements." The delivery tube plunked at his elbow and as he opened the message capsule and read its contents his smile slowly fell to pieces. "They're shipping me out too," he said, hollowly.

IV

Already 89,672,899 recruits had been shipped into space through Camp Leon Trotsky, so the process was an automatic and smoothly working one even though this time it was processing itself, like a snake swallowing its own tail. Bill and his buddies were the last group of recruits through and the snake began ingesting itself right behind them. No sooner had they been shorn of their sprouting fuzz and deloused in the ultrasonic delouser than the barbers rushed at each other and in a welter of under and over arms, gobbets of hair, shards of moustache, bits of flesh, drops of blood, they clipped and shaved each other then pulled the operator after them into the ultrasonic chamber. Medical corpsmen gave themselves injections against rocket fever, space-cafard and the clap, record clerks issued themselves pay books and the loadmasters kicked each other up the ramps and into the waiting shuttle-ships.

Rockets blasted, living columns of fire-like scarlet tongues licking down at the blasting pads, burning up the ramps in a lovely pyrotechnic display since the ramp operators were also aboard. The ships echoed and thundered up into the night sky leaving

Camp Leon Trotsky a dark and silent ghost town. Bits of daily orders and punishment rosters rustled and blew from the bulletin boards, dancing through the deserted streets to finally plaster themselves against the noisy, bright windows of the Officer's Club. A great drinking party was in progress there, although there was much complaining because they had to serve themselves.

Up and up the shuttleships shot, towards the great fleet of deep-spacers that darkened the stars above. It was a new fleet, the most powerful the galaxy had ever seen, so new in fact that the ships were still under construction. Welding torches flared in brilliant points of light while hot rivets hurled their flat trajectories across the sky into waiting buckets. The spots of light died away as one behemoth of the star lanes was completed and thin screams sounded in the spacesuit radio circuit as the workers, instead of being returned to the yards, were pressed into service on the ship they had so recently built.

This was total war.

Bill staggered through the sagging plastic tube that connected the shuttle to a dreadnaught of space and dropped his bags in front of a Petty Chief

Officer who sat at a desk in the hanger-sized spacelock. Or rather he tried to drop it, but since there was no gravity the bags remained in midair and when he pushed them down he rose. (Since a body when it is falling freely is said to be in free fall, and anything with weight has no weight, and for every action there is an equal and opposite reaction or something like that.) The Petty looked up and snarled and pulled Bill back down to the deck.

"None of your bowby space-lubber tricks, tropper. Name?"

"Bill, spelled with two L's."

"Bil," the Petty mumbled, licking the end of his stylo, then inscribing it in the ship's roster with round, illiterate letters. "Two L's for officers only, bowb — learn your place. What's your classification?"

"Recruit, unskilled, untrained, spacesick."

"Well don't puke in here, that's what you have your own quarters for. You are now a Fusetender 6th class, unskilled. Bunk down in compartment 34J-89T-001. Move. And keep that woopsy-sack over your head."

No sooner had Bill found his quarters and thrown his bags into a bunk, where they floated five inches over the reclaimed rock-wool mattress, then Eager Beager came in, followed by

by Bowb Brown and a crowd of strangers, some of them carrying welding torches and angry expressions.

"Where's Ugly and the rest of the squad?" Bill asked.

Bowb shrugged and strapped himself into his bunk for a little shuteye. Eager opened one of the six bags he always carried and removed some boots to polish.

"Are you saved?" a deep voice vibrant with emotion sounded from the other end of the compartment. Bill looked up startled, and the big trooper standing there saw the motion and stabbed towards him with an immense finger. "You, brother, are you saved?"

"That's a little hard to say," Bill mumbled, bending over and rooting in his bag, hoping the man would go away. But he didn't, in fact he came over and sat down on Bill's bunk. Bill tried to ignore him, but this was hard to do because the trooper was over six feet high, heavily muscled and iron jawed. He had lovely, purplish black skin that made Bill a little jealous because his was only a sort of grayish pink. Since the trooper's shipboard uniform was almost the same shade of black he looked all of a piece, very effective with his flashing smile and piercing gaze.

"Welcome aboard the *Christine Keeler*," he said and with a friendly shake splintered most of Bill's knuckle bones. "The grand old lady of this fleet, commissioned almost a week ago. I'm Reverend Fuse-tender 6th Class Tembo, and I see by the stencil on your bag that your name is Bill, and since we're shipmates, Bill, please call me Tembo, and how is the condition of your soul?"

"I haven't had much chance to think about it lately . . ."

"I should think not, just coming from recruit training, since attendance of chapel during training is a court-martial offense. But that's all behind you now and you can be saved. Might I ask if you are of the faith?"

"My folks were Fundamentalist Zoraoastrian, so I suppose . . ."

"Superstition, my boy, rank superstition. It was the hand of fate that brought us together in this ship, that your soul would have this one chance to be saved from the fiery pit. You've heard of Earth?"

"I like plain food . . ."

"It's a planet, my boy—the home of the human race. The home from whence we all sprang, see it, a green and lovely world, a jewel in space." Tembo had slipped a tiny projector from his pocket while he spoke and a colored image appeared on the

bulkhead, a planet swimming artistically through the void girdled by white clouds. Suddenly, ruddy lightning shot through the clouds and they twisted and boiled while great wounds appeared on the planet below. From the pinhead speaker came the tiny moaning sound of rolling, clashing thunder.

"But wars sprang up among the sons of man and they smote each other with the atomic energies until the Earth itself groaned aloud and mighty was the holocaust. And when the final lightnings stilled there was death in the north, death in the west, death in the east, death, death, death. Do you realize what that means?" Tembo's voice was eloquent with feeling, suspended for an instant in midflight, waiting for the answer to the catachistical question.

"I'm not sure," Bill said, rooting aimlessly in his bag, "I come from Phigerinadon II, it's a quieter place . . ."

"There was no death in the SOUTH! And why was the south spared, I ask you, and the answer is because it was the will of Samedi that all the false prophets and false religions and false gods be wiped from the face of the Earth so that the only true faith should remain. The First Reformed Voodoo Church . . ."

General Quarters sounded, a hooting alarm keyed to the resonant frequency of the human skull so that the bone vibrated as though the head were inside a mighty bell and the eyes blurred out of focus with each stroke. There was a scramble for the passageway where the hideous sound was not quite as loud and where non-coms were waiting to herd them to their stations. Bill followed Eager Beager up an oily ladder and out of the hatch in the floor of the fuse room.

Great racks of fuses stretched away on all sides of them, while from the tops of the racks sprang arm-thick cables that looped upwards and vanished through the ceiling. In front of the racks, evenly spaced, were round openings a foot in diameter.

"My opening remarks will be brief, any trouble from any of you and I will personally myself feed you head first down the nearest fuseway." A greasy forefinger pointed at one of the holes in the deck and they recognized the voice of their new master. He was shorter and wider and thicker in the gut than Deathwish, but there was a generic resemblance that was unmistakable.

"I am Fusetender First Class Spleen. I will take you crumbly groundcrawling bowbs and will turn you into highly skilled and

efficient fusetenders or else feed you down the nearest fuseway. This is a highly skilled and efficient technical specialty which usually takes a year to train a good man. But this is war so you're going to learn to do it now or else. I will now demonstrate. Tembo front and center. Take board 19J-9, it's out of circuit now."

Tembo clashed his heels and stood at rigid attention in front of the board. Stretching away on both sides of him were the fuses, white ceramic cylinders capped on both ends with metal, each one a foot in diameter, five foot high and weighing 90 pounds. There was a red band around the midriff of each fuse. First Class Spleen tapped one of these bands.

"Every fuse has one of these red bands which is called a fuse-band and is of the color red. When the fuse burns out this band turns black. I don't expect you to remember all this now, but it's in your manual and you are going to be letter perfect before I'm done with you, or else. Now I will show you what will happen when a fuse burns out. Tembo—that is a burned out fuse! Go!"

"Unggh!" Tembo shouted and leaped at the fuse and grasped it with both hands. "Unggh!" he said again as he pulled it from

the clips, and again Unggh! when he dropped it into the fuseway. Then, still Ungghing, he pulled a new fuse from the storage rack and clipped it into place and, with a final Unggh! snapped back to attention.

"And that's the way it is done, by the count, by the numbers, the trooper way and you are going to learn it or else." A dull buzzing sounded, grumbling through the air like a stifled eructation. "There's the chow call, so I'll let you break now and while you're eating think about what you are going to have to learn. Fall out."

Other troopers were going by in the corridor and they followed them into the bowels of the ship.

"Gee—do you think the food might be any better than it was back in camp?" Eager asked, smacking his lips excitedly.

"It is completely impossible that it could be any worse," Bill said as they joined a line leading to a door labeled CONSOLIDATED MESS NUMBER TWO. "Any change will have to make it better. After all—aren't we fighting troopers now? We have to go into combat fit, the manual says."

The line moved forward with painful slowness, but within an hour they were at the door. In-

side of it a tired looking KP in soapstained, greasy fatigues handed Bill a yellow plastic cup from a rack before him. Bill moved on and when the trooper in front of him stepped away he faced a blank wall from which there emerged a single, handleless spigot. A fat cook standing next to it, wearing a large white chef's hat and a soiled undershirt, waved him forwards with the soup ladle in his hand.

"C'mon, co'mon, ain't you never et before? Cup under the spout, dogtag in the slot, snap it up!"

Bill held the cup as he had been advised and noticed a narrow slit in the metal wall just at eye level. His dogtags were hanging around his neck and he pushed one of them into the slot. Something went *buzzzzz* and a thin stream of yellow fluid gushed out, filling the cup half-way.

"Next man!" the cook shouted and pulled Bill away so that Eager could take his place. "What is this?" Bill asked, peering into the cup.

"What is this! What is this!" the cook raged, growing bright red. "This is your dinner you stupid bowb! This is absolutely chemically pure water in which are dissolved 18 amino acids, 16 vitamins, 11 mineral salts, a flat-ty acid ester and glucose. What

else did you expect?"

"Dinner . . .?" Bill said hopefully, then saw red as the soup ladle crashed down on his head. "Could I have it without the fatty acid ester?" he asked hopefully, but he was pushed out into the corridor where Eager joined him.

"Gee," Eager said. "This has all the food elements necessary to sustain life indefinitely. Isn't that marvelous?"

Bill sipped at his cup then sighed tremulously.

"Look at that," Tembo said, and when Bill turned, a projected image appeared on the corridor wall. It showed a misty firmament in which tiny figures seemed to be riding on clouds. "Hell awaits you, my boy, unless you are saved. Turn your back on your superstitious way. The First Reformed Voodoo Church welcomes you with open arms, come unto her bosom and find your place in heaven at Samedi's right hand. Sit there with Mondongue and Bakalou and Zandor who will welcome you."

The projected scene changed, the clouds grew closer, while from the little speaker came the tiny sound of a heavenly choir with drum accompaniment. Now the figures could be seen clearly, all with very dark skins and white robes from the back of which



protruded great black wings. They smiled and waved gracefully to each other as their clouds passed, while singing enthusiastically and beating on the little tom-toms that each one carried. It was a lovely scene and Bill's eyes misted a bit.

"Attention!"

The barking tones echoed from the walls and the troopers snapped their shoulders back, heels together, eyes ahead. The heavenly choir vanished as Tembo shoved the projector back into his pocket.

"As you was," First Class Spleen ordered, and they turned to see him leading two MPs with drawn handguns who were acting as a bodyguard for an officer. Bill knew it was an officer because they had had an Officer Identification course, plus the fact that there was a **KNOW YOUR OFFICERS** chart on the latrine wall that he had had a great deal of opportunity to study during an anguilluliasis epidemic. His jaw gaped open as the officer went by, almost close enough to *touch*, and stopped in front of Tembo.

"Fusetender 6th Class Tembo I have good news for you. In two weeks your seven year period of enlistment will be up and because of your fine record Captain Zekial has authorized a doubling of the usual mustering-

out pay, an honorable discharge with band music as well as your free transport back to Earth."

Tembo, relaxed yet firm, looked down at the runty lieutenant with his well-chewed blonde moustache who stood before him. "That will be impossible, sir."

"Impossible!" the lieutenant screeched and rocked back and forth on his high-heeled boots. "Who are you to tell me what is impossible —?!"

"Not I, sir," Tembo answered with utmost calm. "Regulation 13-9A, paragraph 45, page 8923, volume 43 of *Rules, Regulations and Articles of War*. 'No man nor officer shall or will receive a discharge other than dishonorable with death sentence from a vessel, post, base, camp, ship, outpost, or labor camp during time of emergency' . . ."

"Are you a ship's lawyer, Tembo?"

"No, sir. I'm a loyal trooper, sir. I just want to do my duty, sir."

"There's something very funny about you, Tembo. I saw in your record that you enlisted *voluntarily* without drugs and or hypnotics being used. Now you refuse discharge. That's bad, Tembo, very bad. Gives you a bad name. Makes you look suspicious. Makes you look like a spy or something."

"I'm a loyal trooper, of the Emperor, sir, not a spy."

"You're not a spy, Tembo, we have looked into that very carefully. But why are you in the service, Tembo?"

"To be a loyal trooper of the Emperor, sir, and to do my best to spread the gospel. Have you been saved, sir?"

"Watch your tongue, trooper or I'll have you up on charges! Yes, we know that story — *reverend* — but we don't believe it. You're being too tricky, but we'll find out . . ." He stalked away muttering to himself and they all snapped to attention until he was gone. The other troopers looked at Tembo oddly and did not feel comfortable until he had gone. Bill and Eager walked slowly back to their quarters.

"Turned down a discharge!" Bill mumbled in awe.

"Gee," Eager said, "maybe he's nuts? I can't think of any other reason."

"Nobody could be *that* crazy," then "I wonder what's in there?" pointing to a door with a large sign that read ADMITTANCE TO AUTHORIZED PERSONNEL ONLY.

"Gee — I don't know — maybe food?"

They slipped through instantly and closed the door behind them, but there was no food there. Instead they were in a long cham-

ber with one curved wall, while attached to this wall were cumbersome devices set with meters, dials, switches, controls, levers, a view screen and a relief tube. Bill bent over and read the label on the nearest one.

"Mark IV Atomic Blaster — and look at the size of them! This must be the ship's main battery." He turned around and saw that Eager was holding his arm up so that his wristwatch pointed at the guns and was pressing on the crown with the index finger of his other hand.

"What are you doing?" Bill asked.

"Gee — just seeing what time it was."

"How can you tell what time it is when you have the inside of your wrist towards your face and the watch is on the outside?"

Footsteps echoed far down the long gundeck and they remembered the sign on the outside of the door. In an instant they had slipped back through it and Bill pressed it quietly shut. When he turned around Eager Beager had gone so that he had to make his way back to their quarters by himself. Eager was busy shining boots for his buddies and didn't look up from his work when Bill came in.

But what *had* he been doing with his watch?

This question kept bugging Bill all the time during the days of their training as they painfully learned the drill of fusetending. It was an exacting, technical job that demanded all their attention, but in spare moments Bill worried. He worried when they stood in line for chow, and he worried during the few moments every night between the time the lights were turned off and the heavy descent of sleep rested upon his fatigue drugged body. He worried whenever he had the time to do it. And he lost weight.

He lost weight not because he was worrying, but for the same reason everyone else lost weight. The shipboard rations. They were designed to sustain life, and that they did, but no mention was made of what kind of life it was to be. It was a dreary, underweight, hungry one. Yet Bill took no notice of this. He had a bigger problem and he needed help. After Sunday drill at the end of their second week he stayed to talk to First Class Spleen instead of joining the others in their tottering run towards the mess hall.

"I have a problem, sir."

"You ain't the only one, but one shot cures it and you ain't a man until you've had it."

"It's not that kind of problem.

I'd like to . . . see the . . . chaplain . . ."

Spleen turned white and sank back against the bulkhead. "Now I heard everything," he said weakly. "Get down to chow and if you don't tell anyone about this, I won't either."

Bill blushed. "I'm sorry about this, First Class Spleen, but I can't help it. It's not my fault I have to see him, it could have happened to anyone." His voice trailed away and he looked down at his feet, rubbing one boot against another. The silence stretched out until Spleen finally spoke, but all the comradeship was gone from his voice.

"Alright, trooper—if that's the way you want it. But I hope none of the rest of the boys hear about it. Skip chow and get up there now—here's a pass." He scrawled on a scrap of paper then threw it contemptuously to the floor, turning and walking away as Bill bent humbly to pick it up.

Bill went down dropchutes, along corridors, through passageways and up ladders. In the ship's directory the chaplain was listed as being in compartment 362-B on the 89th deck and Bill finally found this, a plain metal door set with rivets. He raised his hand to knock while sweat stood out in great beads from his

face and his throat was dry. His knuckles boomed hollowly on the panel and after an endless period a muffled voice sounded from the other side.

"Yeah, yeah — c'mon in — it's open."

Bill stepped through and snapped to attention when he saw the officer behind the single desk that almost filled the tiny room. The officer, a 4th lieutenant, though still young was balding rapidly. There were black circles under his eyes and he needed a shave. His tie, was knotted crookedly and badly crumpled. He continued to scratch among the stacks of paper that littered the desk, picking them up, changing piles with them, scrawling notes on some and throwing others into an overflowing wastebasket. When he moved one of the stacks Bill saw a sign on the desk that read LAUNDRY OFFICER.

"Excuse me, sir," he said, "but I am in the wrong office. I'm looking for the chaplain."

"This is the chaplain's office but he's not on duty until 1300 hours, which, as someone even as stupid looking as you can tell, is in fifteen minutes more."

"Thank you, sir, I'll come back." Bill slid towards the door.

"You'll stay and work." The officer raised bloodshot eyeballs and cackled evilly. "I got you. You can sort the hanky reports.

I've lost 600 jockstraps and they may be in there. You think it's easy to be a laundry officer?" He sniveled with self-pity and pushed a tottering stack of papers over to Bill who began to sort through them. Long before he was finished the buzzer sounded that ended the watch.

"I knew it!" the officer sobbed hopelessly. "This job will never end, instead it gets worse and worse. And you think you got problems!" He reached out an unsteady finger and flipped over the sign on his desk. It read CHAPLAIN on the other side. Then he grabbed the end of his necktie and pulled it back hard over his right shoulder. The necktie was fastened to his collar and the collar was set into ball bearings that rolled smoothly in a track fixed to his shirt. There was a slight whirring sound as the collar rotated, then the necktie was hanging out of sight down his back and his collar was now on backwards, showing white and smooth and cool to the front.

The chaplain steepled his fingers before him, lowered his eyes and smiled sweetly. "How may I help you my son?"

"I thought you were the laundry officer." Bill said, taken aback.

"I am, my son, but that is just one of the burdens that must fall

upon my shoulders. There is little call for a chaplain in these troubled times, but much call for a laundry officer. I do my best to serve." He bent his head, humbly.

"But — which are you? A chaplain who is a part-time laundry officer, or a laundry officer who is a part-time chaplain?"

"That is a mystery, my son. There are some things that it is best not to know. But I see you are troubled. May I ask if you are of the faith?"

"Which faith?"

"That's what I'm asking you!" the chaplain snapped, and for a moment the old laundry officer peeped through. "How can I help you if I do not know what your religion is?"

"Fundamentalist Zoroastrian."

The chaplain took a plastic covered sheet from a drawer and ran his finger down it. "Z . . . Z . . . Zen . . . Zodomite . . . Zoroastrian, Reformed Fundamentalist, is that the one?"

"Yes sir."

"Well, should be no trouble with this my son . . . 21 52 05 . . ." He quickly dialed the number on a control plate set in the desk, then, with a grand gesture and an evangelistic gleam in his eye, he swept all the laundry papers to the floor. Hidden machinery hummed briefly, a portion of the desk top dropped

away and reappeared a moment later bearing a black plastic box decorated with golden bulls, rampant. "Be with you in a second," the chaplain said, opening the box.

First he unrolled a length of white cloth sewn with more golden bulls and draped this around his neck. He placed a thick, leather-bound book next to the box, then on the closed lid set two metal bulls with hollowed out backs. Into one of them he poured distilled water from a plastic flask and into the other sweet oil, which he ignited. Bill watched these familiar arrangements with growing happiness.

"It's very lucky," Bill said, "that you are a Zoroastrian. It makes it much easier to talk to you."

"No luck involved, my son, just intelligent planning." The chaplain dropped some powdered haoma into the flame and Bill's nose twitched as the drugged incense filled the room. "By the grace of Ahura Mazdan I am an anointed priest of Zoroastra. By Allah's will a faithful Muezzin of Islam, through Yahweh's intercession a circumcized rabbi, and so forth." His benign face broke into a savage snarl. "And also because of an officer shortage I am the damned laundry officer." His face cleared. "But

now, you must tell me your problem."

"Well, it's not easy. It may be just foolish suspicion on my part, but I'm worried about one of my buddies. There is something strange about him. I'm not sure how to tell it . . ."

"Have confidence, my boy, and reveal your innermost feelings to me and do not fear. What I hear shall never leave this room for I am bound to secrecy by the oath of my calling. Unburden yourself."

"That's very nice of you, and I do feel better already. You see this buddy of mine has always been a little funny, he shines the boots for all of us and volunteered for latrine orderly and doesn't like girls."

The chaplain nodded beatifically and fanned some of the incense towards his nose. "I see little here to worry you, he sounds a decent lad. For is it not written in the *Vendidad* that we should aid our fellow man and seek to shoulder his burdens and pursue not the harlots of the streets?"

Bill pouted. "That's alright for Sunday school, but it's no way to act in the troopers! Anyway, we just thought he was out of his mind and he might have been — but that's not all. I was with him on the gun deck and he pointed his watch at the guns and pressed

the stem and I heard it *click*! It could be a camera. I . . . I think he is a Chinger spy!" Bill sat back, breathing deeply and sweating. The fatal words had been spoken.

The chaplain continued to nod, smiling, half unconscious from the haoma fumes. Finally he snapped out of it, blew his nose and opened the thick copy of the *Avesta*. He mumbled aloud in old Persian a bit, which seemed to brace him, then slammed it shut.

"You must not bear false witness!" he boomed, fixing Bill with piercing gaze and accusing finger.

"You got me wrong," Bill moaned, writhing in the chair. "He's done these things, I saw him use the watch. What kind of spiritual aid do you call *this*?"

"Just a bracer my boy, a touch of the old-time religion to renew your sense of guilt and start you thinking about going to church regular again. You have been backsliding!" the chaplain roared.

"What else could I do — chapel is forbidden during recruit training."

"Circumstance is no excuse, but you will be forgiven this time because Ahura Mazdah is all-merciful."

"But what about my buddy — the spy?"

"You must forget your suspicions, for they are not worthy of a follower of Zoroaster. This poor lad must not suffer because of his natural inclinations to be friendly, to aid his comrades, to keep himself pure, to own a crummy watch that goes click. And besides, if you do not mind my introducing a spot of logic — how could he be a spy? To be a spy he would have to be a Chinger, and Chingers are seven feet tall with tails. Catch?"

"Yeah, yeah," Bill mumbled unhappily. "I could figure that out for myself — but it still doesn't explain everything."

"It satisfies me, and it must satisfy you. I feel that Ahriman has possessed you to make you think evil of your comrade, and you had better do some penance and join me in a quick prayer before the laundry officer comes back on duty."

This ritual was quickly finished and Bill helped stow the things back in the box and watched it vanish back into the desk. He made his good-bys and turned to leave.

"Just one moment, my son," the chaplain said with his warmest smile, reaching back over his shoulder at the same time to grab the end of his necktie. He pulled and his collar whirled

about and as it did the blissful expression was wiped from his face to be replaced by a surly snarl. "Just where do you think you're going, bowb! Put your ass back in that chair."

"B-but," Bill stammered, "you said I was dismissed."

"That's what the chaplain said, and as laundry officer I have no truck with him. Now — fast — what's the name of this Chinger spy you're hiding?"

"I told you about that under oath —"

"You told the *chaplain* about it, and he keeps his word and he didn't tell me, but I just happened to hear." He pressed a red button on the control panel. "The MPs are on the way. You talk before they get here, bowb, or I'll have you keelhauled without a spacesuit and deprived of canteen privileges for a year. The name?"

"Eager Beaver," Bill sobbed as heavy feet trampled outside and two redhats forced their way into the tiny room.

"I have a spy for you boys," the laundry officer announced triumphantly and the MPs grated their teeth, howled deep in their throats, and launched themselves through the air at Bill. He dropped under the assault of fists and clubs and was running with blood before the laundry officer

could pull the overmuscled morons with their eyes not an inch apart, off him.

"Not him . . ." the officer gasped, and threw Bill a towel to wipe off some of the blood. "This is our informant, the loyal, patriotic hero who ratted on his buddy by the name of Eager Beager, who we will now grab and chain so he can be questioned. Let's go."

The MPs held Bill up between them and by the time they had come to the fusetenders' quarters the breeze from their swift passage had restored him a bit. The laundry officer opened the door just enough to poke in his head. "Hi, gang!" he called cheerily. "Is Eager Beager here?"

Eager looked up from the boot he was polishing, waving and grinning. "That's me — gee."

"Get him!" the laundry officer expostulated, jumping aside and pointing accusingly. Bill dropped to the floor as the MPs let go of him and thundered into the compartment. By the time he had staggered back to his feet Eager was pinioned handcuffed and chained, hand and foot, but still grinning.

"Gee — you guys want some boots polished too?"

"No backtalk you dirty spy," the laundry officer grated and slapped him hard on the offensive grin. At least he tried to

slap him on the offensive grin but Beager opened his mouth and bit the hand that hit him, clamping down hard so that the officer could not get away. "He bit me!" the man howled and tried desperately to pull free. Both MPs, each handcuffed to an arm of the prisoner, raised their clubs to give him a sound battering.

At this moment the top of Eager Beager's head flew open.

Happening at any other time this would have been considered unusual, but happening at this moment it was spectacularly unusual and they all, including Bill, gaped as a seven-inch high lizard climbed out of the open skull and jumped to the floor in which it made a sizeable dent upon landing. It had four tiny arms, a long tail, a head like a baby alligator and was bright green. It looked exactly like a Chinger except that it was seven inches tall instead of seven feet.

"All bowby humans have B. O." it said in a thin imitation of Eager Beager's voice. "Chingers can't sweat. Chingers forever!" It charged across the compartment toward Beager's bunk.

Paralysis prevailed. All of the fusetenders who had witnessed the impossible events stood or sat as they had been, frozen with

shock and eyes bulging like hard-boiled eggs. The laundry officer was pinioned by the teeth locked into his hand, while the two MPs struggled with the handcuffs that held them to the immobile body. Only Bill was free to move and, still dizzy from the beating, he bent over to grab the tiny creature. Small and powerful talons locked into his flesh and he was pulled from his feet and went sailing through the air to crash against a bulkhead. "Gee—that's for you, you stoolie!" the miniscule voice squeaked.

Before anyone else could interfere the lizardoid ran to Beager's pile of barracks bags and tore the topmost one open and dived inside. A highpitched humming grew in volume an instant later and from the bag emerged the bulletlike nose of a shining projectile. It pushed out until a tiny spaceship not two feet long floated in the compartment. Then it rotated about its vertical axis, stopped when it pointed at the bulkhead. The humming rose in pitch and the ship suddenly shot forward and tore through the metal of the partition as if it had been no stronger than wet cardboard. There were other distant tearing sounds as it penetrated bulkhead after bulkhead until, with a rending clang it crashed through the outer skin of the ship and escaped into

space. There was the roar of air rushing into the void and the clamor of alarm bells.

"Well I'll be damned." the laundry officer said, then snapped his gaping mouth closed and screamed, "Get this thing offa my hand—it's biting me to death!"

The two MPs swayed back and forth, handcuffed effectively to the immobile figure of the former Eager Beager. Beager just stared, smiling around the grip he had on the officer's hand, and it wasn't until Bill got his atomic rifle and put the barrel into Eager's mouth and levered the jaw open that the hand could be withdrawn. While he did this Bill saw that the top of Eager's head had split open just above his ears and was held at the back by a shiny brass hinge. Inside the gaping skull, instead of brains and bones and things, was a model control room with a tiny chair, miniscule controls, teevee screens and a water cooler. Eager was just a robot worked by the little creature that had escaped in the spaceship. It looked like a Chinger—but it was only seven inches tall.

"Hey!" Bill said, "Eager is just a robot worked by the little creature that escaped in the spaceship! It looked like a Chinger—but it was only seven inches tall..."

"Seven inches, seven feet—what difference does it make!" the laundry officer mumbled petulantly as he wrapped a handkerchief around his wounded hand. "You don't expect us to tell the recruits how big the enemy really are, or to explain that they come from a 10G planet. We gotta keep the morale up."

VI

Now that Eager Beager had turned out to be a Chinger spy, Bill felt very much alone. Bowb Brown, who never talked anyway, now talked even less, which meant never, so there was no one that Bill could bitch to. Bowb was the only other fuse-man in the compartment who had been in Bill's squad at Camp Leon Trotsky, and all of the new men were very clannish and given to sitting close together and mumbling and throwing suspicious looks over their shoulders if he should come too close. Their only recreation was welding and every offwatch they would break out the welders and weld things to the floor and the next watch cut them loose again which is about as dim a way of wasting time as there is, but they seemed to enjoy it. So Bill was very much out of things and tried bitching to Eager Beager.

"Look at the trouble you got me into!" he whined.

"At least close your head when I'm talking to you," Bill snarled and reached over to slam the top of Eager's head shut. But it didn't do any good. Eager couldn't do anything now except smile. He had polished his last boot. He just stood there now, he was really very heavy and besides was magnetized to the floor. The fusetenders hung their dirty shirts and arc welders on him. He stayed there for three watches before someone figured out what to do with him. Finally a squad of MPs came with crowbars and tilted him into a handcar and rolled him away.

"So long," Bill called out, waving after him, then went back to polishing his boots. "He was a good buddy even if he was a Chinger spy."

Bowb didn't answer him, and welders wouldn't talk to him and he spent a lot of the time avoiding Reverend Tembo. The grand old lady of the fleet, *Christine Keeler*, was still in orbit while her engines were being installed. There was very little to do because, in spite of what First Class Spleen had said they had mastered all the intricacies of fusetending in a little less than the prescribed year—in fact it took them something like maybe fifteen minutes.

In his free time Bill wandered around the ship, going as far as the MPs who guarded the hatchways would allow him. He even considered going back to see the chaplain so he could have someone to bitch to. But if he timed it wrong he might meet the laundry officer again and that was more than he could face. So he walked through the ship, very much alone, and looked in through the door of a compartment and saw a boot on a bed.

Bill stopped, frozen, immobile, shocked, rigid, horrified, dismayed, and had to fight for control of his suddenly contracted bladder.

He knew that boot. He would never forget that boot until the day he died, just as he would never forget his serial number and could say it frontwards or backwards or from the inside out. Every detail of that terrible boot was clear in his memory from the snakelike laces in the repulsive leather of the uppers — said to be made of human skin — to the corrugated stamping soles tinged with red that could only have been human blood.

That boot belonged to Deathwish Drang.

The boot was attached to a leg and paralyzed with terror, as unable to control himself as a bird before a snake, he found

himself leaning further and further into the compartment as his eyes traced up the leg past the belt to the shirt to the neck upon which rested the face that had featured largely in his nightmares since he had enlisted. The lips moved.

"Is that you Bill? C'mon in and rest it."

Bill stumbled in.

"Have a hunk of candy," Deathwish said, and smiled.

Reflex drove Bill's fingers into the offered box and set his jaw chewing on the first solid food that had passed his lips in weeks. Saliva spouted from dusty orifices and his stomach gave a preliminary rumble while his thoughts drove maddingly in circles while he tried to figure out what expression was on Deathwish's face. Lips curved at the corners behind the tusks, little crinkles on the cheeks. It was hopeless. He could not recognize it.

"I hear Eager Beager turned out to be a Chinger spy," Deathwish said, closing the box of candy and sliding it under the pillow. "I should have figured that one out myself. I knew there was something very wrong with him, doing his buddies' boots and that crap, but I thought he was just nuts. Should have known better . . ."

"Deathwish," Bill said hoarse-

ly, "it can't be, I know — but you are acting like a human being!"

Deathwish chuckled, not his ripsaw - slicing - human - bone chuckle, but an almost normal one.

Bill stammered. "But you are a sadist, a pervert, a beast, a creature, a thing, a murderer . . ."

"Why, thanks, Bill. That's very nice to hear. I try to do my job to the best of my abilities, but I'm human enough to enjoy a word of praise now and then. Being a murderer is hard to project but I'm glad it got across, even to a recruit as stupid as you were."

"B-but . . . aren't you *really* a . . ."

"**E**asy now!" Deathwish snapped, and there was enough of the old venom and vileness to lower Bill's body temperature six degrees. Then Deathwish smiled again. "Can't blame you, son, for carrying on this way, you being kind of stupid and from a rube planet and having your education retarded by the troopers and all that. But wake up, boy! Military education is far too important a thing to be wasted by allowing amateurs to get involved. If you read some of the things in our college textbooks it would make your blood cold, yes indeed. Do you realize

that in prehistoric times the drill-sergeants or whatever it was they called them, that they were *real* sadists! The armed forces would let these people with no real knowledge absolutely *destroy* recruits. Let them learn to hate the service before they learned to fear it, which wrecks hell with discipline. And talk about wasteful! They were always marching someone to death by accident or drowning a squad or nonsense like that. The waste alone would make you cry."

"Could I ask what you majored in in college?" Bill asked in a very tiny and humble voice.

"Military Discipline, Spirit Breaking and Method Acting. A rough course, four years, but I graduated Sigma Cum, which is not bad for a boy from a working class family. I've made a career of the service and that's why I can't understand why the ungrateful bastards went and shipped me out on this crummy can!" He lifted his goldrimmed glasses to flick away a developing tear.

"You expect gratitude from the service?" Bill asked humbly.

"No, of course not, how foolish of me. Thanks for jerking me back into line, Bill, you'll make a good trooper. All I expect is criminal indifference which I can take advantage of by working through the old boys' network,

bribery, cutting false orders, black-marketing and the other usual things. It's just that I *had* been doing a good job on you slobs in Camp Leon Trotsky and the least I expected was to be left alone to keep doing it, which was pretty damn stupid of me. I had better get cracking on my transfer now." He slid to his feet and stowed the candy and gold-rimmed glasses away in a locked footlocker.

Bill, who in moments of shock found it hard to adjust instantly, was still bobbing his head and occasionally banging it with the heel of his hand. "Lucky thing," he said, "for your chosen career that you were born deformed—I mean you have such nice teeth."

"Luck nothing," Deathwish said, plunking one of his projecting tusks, "expensive as hell. Do you know what a gene-mutated, vat-grown, surgically implanted set of two-inch tusks cost? I bet you don't know! I worked the summer vac for three years to earn enough to buy these—but I tell you they were worth it. The *image*, that's everything. I studied the old tapes of prehistoric spiritbreakers and in their own crude way they were good. Selected by physical type and low I.Q. of course, but they knew their roles. Bullet heads, shaved

clean with scars, thick jaws, repulsive manners, hot pants, everything. I figured a small investment in the beginning would pay rich dividends in the end. And it was a sacrifice, believe me, you won't see many implanted tusks around! For a lot of reasons. Oh, maybe they are good for eating rough meat, but what the hell else? Wait until you try kissing your first girl. . . . Now, get lost Bill, I got things to do. See you around."

His last words faded in the distance since Bill's well-conditioned reflexes had carried him down the corridor the instant he had been dismissed. When the spontaneous terror faded he began to walk with a crafty roll, like a duck with a spring knee-cap, that he thought looked like an old spacesailor's gait. He was beginning to feel a seasoned hand and momentarily labored under the delusion that he knew more about the troopers than they knew about him. This pathetic misconception was dispelled instantly by the speakers on the ceiling which belched and then grated their nasal voices throughout the ship.

"Now hear this, the orders direct from the old man himself, Captain Zekial, that you all have been waiting to hear. We're heading into action so we are going to have a clean buckle-

down fore and aft, stow all loose gear."

A low, heartfelt groan of pain echoed from every compartment of the immense ship.

VII

There was plenty of latrine rumor and scuttlebutt about this first flight of the *Chris' Keeler* but none of it was true. The rumors were planted by undercover MPs and were valueless. About the only thing they could be sure of was that they might be going someplace because they seemed to be getting ready to go someplace. Even Tembo admitted to that as they lashed down fuses in the storeroom.

"Then again," he added, "we might be doing all this just to fool any spies into thinking we are going someplace when really some other ships are going there."

"Where?" Bill asked irritably, tying his forefinger into a knot and removing part of the nail when he pulled it free.

"Why anyplace at all, it doesn't matter." Tembo was undisturbed by anything that did not bear on his faith. "But I do know where you are going, Bill."

"Where?" Eagerly. A perennial sucker for a rumor.

"Straight to hell unless you are saved."

"Not again." Bill pleaded.

"Look there," Tembo said temptingly, and projected a heavenly scene with golden gates, clouds and a soft tom-tom beat in the background.

"Knock off that salvation crap!" First Class Spleen shouted, and the scene vanished.

Something tugged slightly at Bill's stomach, but he ignored it as being just another of the symptoms sent up continually by his panic-stricken gut which thought it was starving to death and hadn't yet realized that all its marvelous grinding and dissolving machinery had been condemned to a liquid diet. But Tembo stopped work and cocked his head to one side, then poked himself experimentally in the stomach.

"We're moving," he said positively, "and going interstellar too. They've turned on the star-drive."

"You mean we are breaking through into sub-space and will soon experience the terrible wrenching at every fiber of our being?"

"No, they don't use the old sub-space drive anymore because though a lot of ships broke through into sub-space with a fiber-wrenching jerk, none of them have yet broke back out. I read in the *Trooper's Times* where some mathematician said

that there had been a slight error in the equations and that time was different in sub-space, but it was different faster not different slower so that it will be maybe forever before those ships come out."

"Then we're going into hyperspace?"

"No such thing."

"Or we're being dissolved into our component atoms and recorded in the memory of a giant computer who thinks we are someplace else so there we are?"

"Wow!" Tembo said, his eyebrows crawling up to his hairline. "For a Zoroastrian farmboy you have some strange ideas! Have you been smoking or drinking something I don't know about?"

"Tell me!" Bill pleaded. "If it's not one of them — what is it? We're going to have to cross interstellar space to fight the Chingers. How are we going to do it?"

"It's like this," Tembo looked around to make sure that First Class Spleen was out of sight, then put his cupped hands together to form a ball. "You make believe that my hands are the ship, just floating in space. Then the bloater drive is turned on —"

"The what?"

"The bloater drive, it's called that because it bloats things up. You know, everything is made

up of little bitty things called electrons, protons, neutrons, trons, things like that, sort of held together by a kind of binding energy. Now if you weaken the energy that holds things together — I forgot to tell you that also they are spinning around all the time like crazy, or maybe you already know — you weaken the energy and because they are going around so fast all the little pieces start to move away from each other, and the weaker the energy the further apart they move. Are you with me so far?"

"I think I am, but I'm not sure that I like it."

"Keep cool. Now — see my hands? As the energy gets weaker the ship gets bigger," he moved his hands farther apart. "It gets bigger and bigger until it is as big as a planet, then as big as a sun then a whole stellar system. The bloater drive can make us just as big as we want to be, then it's turned the other way and we shrink back to our regular size and there we are."

"Where are we?"

"Wherever we want to be," Tembo answered patiently.

Bill turned away and industriously rubbed shine-o onto a fuse as First Class Spleen sauntered by, a suspicious glint in his eye. As soon as he turned the corner Bill leaned over and hissed at Tembo.

"How can we be anywhere else than where we started? Getting bigger, getting smaller doesn't get us anywhere."

"Well, they're pretty tricky with the old bloater drive. The way I heard it it's like you take a rubber band and hold one end in each hand. You don't move your left hand but you stretch the band out as far as it will go with your right hand. When you let the band shrink back again you keep your right hand steady and let go with your left. See? You never moved the rubber band, just stretched it and let it snap — but it has moved over. Like our ship is doing now. It's getting bigger, but in one direction. When the nose reaches wherever we're going the stern will be wherever we were. Then we shrink and bango! there we are. And you can get into heaven just that easily, my son, if only . . ."

"Preaching on government time, Tembol!" First Class Spleen howled from the other side of the fuserack over which he was looking with a mirror tied to the end of a rod. "I'll have you polishing fuseclips for a year. You've been warned before."

They tied and polished in silence after that, until a little planet about as big as a tennis ball swam in through the bulk-

head. A perfect little planet with tiny icecaps, cold fronts, cloud cover, oceans and the works.

"What's that?" Bill yiped.

"Bad navigation," Tembo scowled. "Backlash, the ship is slipping back a little on one end instead of going all the other way. No-no! Don't touch it, it can cause accidents sometimes. That's the planet we just left, Phigerinadon II."

"My home," Bill sobbed and felt the tears rise as the planet shrank to the size of a marble. "So long, Mom." He waved as the marble shrunk to a mote then vanished.

After this the journey was uneventful, particularly since they could not feel when they were moving, did not know when they stopped, and had no idea where they were. Though they were sure they had arrived somewhere when they were ordered to strip the lashings from the fuses. The inaction continued for three watches and then the GENERAL QUARTERS alarm sounded. Bill ran with the others, happy for the first time since he had enlisted. All the sacrifices, the hardships would not be in vain. He was seeing action at last against the dirty Chingers.

They stood in first position opposite the fuseracks, eyes intent on the red bands on the fuses that were called the fusebands.

Through the soles of his boots Bill could feel a faint, distant tremor in the deck.

"What's that?" he asked Tembo out of the corner of his mouth.

"Main drive, not the bloater drive. Atomic engines. Means we must be maneuvering, doing something."

"But *what*?"

"Watch them fusebands!" First Class Spleen shouted.

Bill was beginning to sweat — then suddenly realized that it was becoming excruciatingly hot. Tembo, without taking his eyes from the fuses, slipped out of his clothes and folded them neatly behind him.

"Are we allowed to do that?" Bill asked, pulling at his collar. "What's happening?"

"It's against regulations but you have to strip or cook. Peel, son, or you will die unblessed. We must be going into action because the shields are up. Seventeen force screens, one electromagnetic screen, a double armored hull and a thin layer of pseudoliving jelly that flows over and seals any openings. With all that stuff there is absolutely no energy loss from the ship, nor any way to get rid of energy. Or heat. With the engines running and everyone sweating it can get pretty hot. Even hotter when the guns fire."

The temperature stayed high, just at the boundary of tolerability for hours, while they stared at the fusebands. At one point there was a tiny plink that Bill felt through his bare feet on the hot metal rather than heard.

"What was that?"

"Torpedoes being fired."

"At *what*?"

Trembo just shrugged in answer and never let his vigilant gaze stray from the fusebands. Bill writhed with frustration, boredom, heat rash and fatigue for another hour, until the all clear blew and a breath of cool air came in from the ventilators. By the time he had pulled his uniform back on Tembo was gone and he trudged wearily back to his quarters. There was a new mimeographed notice pinned to the bulletin board in the corridor and he bent to read its blurred message.

FROM: Captain Zekial
TO: All Personnel

RE: Recent engagement

On 23/11-8956 this ship did participate in the destruction by atomic torpedo of the enemy installation 17KL-345 and did in concert with the other vessels of said flotilla RED CRUTCH accomplish its mission, it is thereby hereby authorized that all personnel of this vessel shall attach on Atomic Cluster to the ribbon denoting the Active Duty Unit Engagement Award, or however if this is their first mission of this type they will be authorized to wear the Unit Engagement Award.

NOTE: Some personnel have been observed with their Atomic Clusters in-

verted and this is **WRONG** and a **COURT-MARTIAL OFFENSE** that is punishable by **DEATH**.

VIII

After the heroic razing of 17KL-345 there were weeks of training and drill to restore the battle-weary veterans to their usual fitness. But midway in these depressing months a new call sounded over the speakers, one Bill had never heard before, a clanging sound like steel bars being clashed together in a metal drum full of marbles. It meant nothing to him nor to the other new men, but it sent Tembo springing from his bunk to do a quick two step Death Curse Dance with tom-tom accompaniment on his footlocker cover.

"Are you around the bend?" Bill asked dully from where he sprawled reading a tattered copy of *Real Ghoul Sexfiend Shocker Comics* with built-in sound effects. A ghastly moan was keening from the page he was looking at.

"Don't you know?" Tembo asked. "Don't you **KNOW**! That's mail call, my boy, the grandest sound in space."

The rest of the watch was spent in hurrying up and waiting, standing in line and all the rest. Maximum inefficiency was attached to the delivery of the mail but finally, in spite of all

barriers, the post was distributed and Bill had a precious special-postal from his mother. On one side of the card was a picture of the Noisome-Offal refinery just outside of his hometown, and this alone was enough to raise a lump in his throat. Then, in the tiny square allowed for the message, his mother's scrawl had traced out: "Bad crop, in debt, robmule has packing glanders, hope you are the same—love, Maw." Still, it was a message from home and he read and reread it as they stood in line for chow. Tembo, just ahead of him, also had a card, all angels and churches, just what you would expect, and Bill was shocked when he saw Tembo read the card one last time then plunge it into his cup of dinner.

"What are you doing that for?" he asked, shocked.

"What else is mail good for?" Tembo hummed, and poked the card deeper. "You just watch this now."

Before Bill's startled gaze, and right in front of his eyes, the card was starting to swell. The white surface broke off and fell away in tiny flakes while the brown insides grew and grew until they filled the cup and were an inch thick. Tembo fished the dripping slab out and took a large bite from one corner.

"Dehydrated chocolate," he

said indistinctly. "Good! Try yours."

Even before he spoke Bill had pushed his card down into the liquid and was fascinatingly watching it swell. The message fell away, but instead of brown a swelling white mass became visible.

"Taffy — or bread maybe," he said, and tried not to drool.

The white mass was swelling, pushing against the sides of the cup, expanding out of the top. Bill grabbed the end and held it as it rose. Out and out it came until every drop of liquid had been absorbed and Bill held between his outstretched hands a string of fat, connected letters over two yards long. VOTE-FOR - HONEST - GEEK - THE - TROOPERS - FRIEND they read. Bill leaned over and bit out an immense mouthful of T. He spluttered and spat the damp shards onto the deck.

"Cardboard," he said hollowly. "Mother always shops for bargains. Even in dehydrated chocolate . . ." He reached for his cup for something to wash the old newsprint taste out of his mouth but it was empty.

Somewhere, high in the seats of power a decision was made, a problem resolved, an order issued. From small things

do big things grow; a tiny bird terd lands on a snow-covered mountain slope, rolls, collects snow, becomes bigger and bigger, gigantic and more gigantic until it is a thundering mass of snow and ice, an avalanche, a ravening mass of hurtling death that wipes out an entire village. From small beginnings . . . Who knows what the beginning was here, perhaps the Gods do, but they are laughing. Perhaps the haughty strutting peahen wife of some high minister saw a bauble she cherished and with shrewish, spiteful tongue exacerbated her peacock husband until, to give himself peace, he promised her the trinket, then sought the money for its purchase. Perhaps this was a word in the Emperor's ear about a new campaign in the 77sub7th Zone, quiet now for years, a victory there — or even a draw if there were enough deaths — would mean a medal, an award, some cash. And thus did a woman's covetousness, like a tiny bird's terd, start the snowball of warfare rolling, mighty fleets gathering, ship after ship assembling, like a rock in a pool of water the ripples spread until even the lowliest were touched by its motion . . .

"We're heading for action," Tembo said as he sniffed at his cup of lunch. "They're

loading up the chow with stimulants, pain depressors, saltpeter and antibiotics."

"Is that why they keep playing the patriotic music?" Bill shouted so that he could be heard over the endless roar of bugles and drums that poured from the speakers. Tembo nodded.

"There's little time left to be saved, to assure your place in Samedi's legions—"

"Why don't you talk to Bowb Brown?" Bill screamed. "I got tom-toms coming out of my ears! Every time I look at a wall I see angels floating by on clouds. Stop bothering me! Work on Bowb—anybody who would do what he does with thoats would probably join up with your Voodoo mob in a second."

"I have talked with Brown about his soul, but the issue is still in doubt. He never answers me so I am not sure if he has heard me or not. But you are different, my son, you show anger which means you are showing doubt, and doubt is the first step to belief."

The music cut off in mid-peal and for three seconds there was an echoing blast of silence that abruptly terminated.

"Now hear this. Attention all hands . . . stand by . . . in a few moments we will be taking you to the flagship for an on-the-spot report from the admiral . . .

stand by . . ." The voice was cut off by the sounding of General Quarters, but went on again when this hideous sound had ended. ". . . and here we are on the bridge of that gigantic conquistadore of the spacelanes, the twenty-mile long, heavily armored, mightily gunned super battleship the *Fairy Queen* . . . the men on watch are stepping aside now and coming towards me in a simple uniform of spun platinum is the Grand Admiral of the Fleet, the Right Honorable Lord Archaeopteryx . . . Could you spare us a moment Your Lordship? Wonderful! The next voice you are about to hear will be . . ."

The next voice was a burst of music while the fusemen eyed their fusebands, but the next voice after had all the rich adenoidal tones always heard from peers of the empire.

"Lads—we're going into action! This, the mightiest fleet the galaxy has ever seen is heading directly towards the enemy to deliver the devastating blow that may win us the war. In my operations tank before me I see myriad pinpoints of light, stretching as far as the eye can see and each point of light, I tell you they are like holes in a blanket!, is not a ship, not a squadron—but an entire *fleet*! We are sweeping forward, closing in . . ."

The sound of tom-toms filled the air and on the fuseband that Bill was watching appeared a matched set of golden gates, swinging open.

"Tembo!" he screamed. "Will you knock that off! I want to hear about the battle."

"Canned tripe," Tembo sniffed. "Better to use the few remaining moments of this life that may remain to you to seek salvation. That's no admiral, that's a canned tape. I've heard it five times already. They only play it to build morale before what they are sure is to be a battle with heavy losses. It never was an admiral, its from an old teevee program."

"Yippee!" Bill shouted and leaped forward. The fuse he was looking at crackled with a brilliant discharge around the clips and at the same moment the fuseband charred and turned from red to black. "Unggh!" he grunted, then in rapid succession, "Unggh! Unggh! Unggh!" burning his palms on the still hot fuse, dropping it on his toe, and finally getting it into a fuseway. When he turned back Tembo had already clipped a fresh fuse into the empty clips.

"That was *my* fuse—you shouldn't have . . ." there were tears in his eyes.

"Sorry. But by the rules I must help if I am free."

"Well, at least we're in action," Bill said, back in position and trying to favor his bruised foot.

"Not in action yet, still to cold in here. And that was just a fuse breakdown, you can tell by the clip discharge, they do that sometimes when they get old."

". . . massed armadas manned by heroic troopers . . ."

"We *could* have been in combat." Bill pouted.

". . . thunder of atomic broadsides and lightning trails of hurtling torpedoes . . ."

"I think we are now. It does feel warmer, doesn't it, Bill? We had better undress, if it really is a battle we may get too busy."

"Let's go, let's go, down to the buff," First Class Spleen barked leaping gazelle-like down the rows of fuses, clad only in a pair of dirty gymsocks and his tattooed-on stripes and fouled fuse insignia of rank. There was a sudden crackling in the air and Bill felt the shortly clipped stubs of his hair stirring in his scalp.

"What's that?" he yiped.

"Secondary discharge from that bank of fuses," Tembo pointed. "It's classified as to what is happening but I heard tell that it means one of the defense screens is under radiation attack and as it overloads it climbs up the spectrum to green, to blue to ultraviolet until fin-

ally it goes black and the screen breaks down."

"That sounds pretty way out."

"I told you it was just a rumor. The material is classified."

"THERE SHE GOES!!"

A crackling bang split the humid air of the fuseroom and a bank of fuses arced, smoked, burned black. One of them cracked in half, showering small fragments like shrapnel in every direction. The fusemen leaped, grabbed the fuses, slipped in replacements with sweating hands, barely visible to each other through the reeking layers of smoke. The fuses were driven home and there was a moment's silence, broken only by a plaintive bleating from the communications screen.

"Son of a bowl!" First Class Spleen muttered, kicking a fuse out of the way and diving for the screen. His uniform jacket was hanging on a hook next to it, and he struggled into this before banging the receive switch. He finished closing the last button just as the screen cleared. Spleen saluted, so it must have been an officer he was facing. The screen was edge on to Bill so he couldn't tell, but the voice had the quacking no-chin-and-plenty-of-teeth whine that he was beginning to associate with the officer class.

"You're slow in answering,

First Class Spleen — maybe Second Class Spleen would be able to answer faster?"

"Have pity, sir — I'm an old man." He dropped to his knees in a prayerful attitude which took him off the screen.

"Get up you idiot! Have you repaired the fuses after that last overload?"

"We *replace*, sir, not *repair*."

"None of your technical gibberish, you swine! A straight answer!"

"All in order, sir. Operating in the green. No complaints from anyone, your worship."

"Why are you out of uniform?"

"I am in uniform, sir," Spleen whined, moving closer to the screen so that his bare behind and shaking lower limbs could not be seen.

"Don't lie to me! There's *sweat* on your forehead. You aren't allowed to sweat in uniform. Do you see me sweating? And I have a cap on too — at the correct angle. I'll forget it this time because I have a heart of gold. Dismissed."

"**F**ilthy bowl!" Spleen cursed at the top of his lungs, tearing the jacket from his stifling body. The temperature was over 120 and still rising. "Sweat! They have air-conditioning on the bridge — and where do you think they discharge the heat?"

In here! YEOW!!" he cried.

Two entire bands of fuses blew out at the same time, three of the fuses exploding like bombs. At the same moment the floor under their feet bucked hard enough to actually be felt.

"Big trouble!" Tembo shouted. "Anything that is strong enough to feel through the stasis field must be powerful enough to flatten this ship like a pancake. There go some more!" He dived for the bank and kicked a fuse clear of the clips and jammed in a replacement.

It was an inferno. Fuses were exploding like aerial bombs, sending whistling particles of ceramic death through the air. There was a lightning crackle as a board shorted to the metal floor and a hideous scream, thankfully cut short, as the sheet of lightning passed through a fusetender's body. Greasy smoke boiled and hung in sheets making it almost impossible to see. Bill raked the remains of a broken fuse from the darkened clips and jumped for the replacement rack. He clutched the 90 pound fuse in his aching arms and had just turned back towards the boards when the universe suddenly exploded.

All the remaining fuses seemed to have shorted at once and the screaming bolt of crackling electricity crashed the length of

the room. In its eye-piercing light and in a single, eternal moment Bill saw the flame sear through the ranks of the fusetenders, throwing them about and incinerating them like particles of dust in an open fire. Tembo crumpled and collapsed, a mass of seared flesh; a flying length of metal tore First Class Spleen open from neck to groin in a single hideous wound.

"Look at that vent in Spleen!" Bowb shouted, then screamed as a ball of lightning rolled over him and turned him to a blackened husk in a fraction of a second.

By chance, a mere accident, Bill was holding the solid bulk of the fuse before him when the flame struck. It washed over his left arm which was on the outside of the fuse and hurled its flaming weight against the thick cylinder. The force hit Bill, knocked him back towards the reserve racks of fuses, and rolled him end over end flat on the floor while the all-destroying sheet of fire crackled inches above his head. It died away, as suddenly as it had come, leaving behind nothing but smoke, heat, the scorched smell of roasted flesh, destruction and death, death, death. Bill crawled painfully for the hatchway. Nothing else moved down the blackened



and twisted length of the fuse-room.

The compartment below seemed just as hot, the air as bereft of nourishment for his lungs as the one he had just quitted. He crawled on, barely conscious of the fact that he moved on two lacerated knees and one bloody hand. His other arm just hung and dragged, a twisted and blackened length of debris, and only the blessings of deep shock kept him from screaming with unbearable pain.

He crawled on, over a sill, through a passageway. The air was clearer here, and much cooler: he sat up and inhaled its blessed freshness. The compartment was familiar—yet unfamiliar—he blinked at it, trying to understand why. Long and narrow with a curved wall that had the butt ends of immense guns projecting from it.

The main battery, of course, the guns Chinger spy Eager Beager had photographed. Different now, the ceiling closer to the deck, bent and dented, as if some gigantic hammer had beat on it from the outside. There was a man slumped in the gunner's seat of the nearest weapon.

"What happened?" Bill asked, dragging himself over to the man and clutching him by the shoulder. Surprisingly enough the gunner only weighed a few

pounds and he fell from the seat light as a husk with a shriveled parchment face as though not a drop of liquid were left in his body.

"Dehydrator ray," Bill grunted. "thought they only had them on teevee." The gunner's seat was padded and looked very comfortable, far more so than the warped steel deck: Bill slid into the recently vacated position and stared with unseeing eyes at the screen before him. Little moving blobs of light.

* In large letters, just above the screen, was printed: GREEN LIGHTS OUR SHIPS, RED LIGHT ENEMY. FORGETTING THIS IS A COURT-MARTIAL OFFENSE.

"I won't forget," Bill mumbled as he started to slide sideways from the chair. To steady himself he grabbed a large handle that rose before him, and when he did a circle of light with an X in it moved on the screen. It was very interesting. He put the circle around one of the green lights, then remembered something about a court-martial offense. He jiggled it a bit and moved it over to a red light, with the X right over the light. There was a red button on top of the handle and he pressed it because it looked like the kind of button that is made to be pressed. The gun next to him went *whifle* . . .

in a very subdued way and the red lights went out. Not very interesting, he let go of the handle.

"Oh, but you are a fighting fool!" a voice said and, with some effort, Bill turned his head. A man stood in the doorway wearing a burned and tattered uniform still hung with shreds of gold braid. He weaved forward. "I saw it," he breathed. "Until my dying day I won't forget it. A fighting fool! What guts! Fearless! Forward against the enemy, no holds barred, don't give up the ship . . ."

"What the bowb you talking about?" Bill asked thickly.

"A hero!" the officer said pounding Bill on the back, which caused a great deal of pain and was the last straw for his conscious mind which let go the reins of command and went away to sulk. Bill passed out.

IX

"Now won't you be a nice trooper-wooper and drink your dinner . . ."

The warm notes of the voice insinuated themselves into a singularly repulsive dream that Bill was only too glad to leave and, with a great deal of effort he managed to heave his eyes open. A quick bit of blinking got them into focus and he saw before

him a cup on a tray held by a white hand that was attached to a white arm that was connected to a white uniform well stuffed with female breasts. With a guttural animal growl Bill knocked the tray aside and hurled himself at the dress. He didn't quite make it because his left arm was wrapped up in something and hung from wires, so that he spun around in the bed like an impaled beetle, still uttering harsh cries. The nurse shrieked and fled.

"Glad to see that you are feeling better," the doctor said, whipping him straight in the bed with a practiced gesture and numbing Bill's still flailing right arm with a neat judo blow. "I'll pour you some more dinner and you drink it right down, then we'll let your buddies in for the unveiling, they're all waiting outside."

The tingling was dying from his arm and he could wrap his fingers about the cup now. He sipped. "What buddies? What unveiling? What's going on here?" he asked suspiciously.

Then the door was opened and the troopers came in. Bill searched their faces, looking for buddies, but all he saw were ex-welders and strangers. Then he remembered. "Bowb Brown cooked!" he screamed. "Tembo broiled! First Class Spleen gutted! They're all dead!" He hid

under the covers and moaned horribly.

"That's no way for a hero to act," the doctor said, dragging him back onto the pillows and tucking the covers under his arms. "You're a hero, trooper, the man whose guts, ingenuity, integrity, stick-to-itiveness, fighting spirit and deadly aim saved the ship. All the screens were down, the power room destroyed, the gunners dead, control lost and the enemy dreadnaught zeroing in for the kill when you appeared like an avenging angel, wounded and near to death, and with your last conscious effort fired the shot heard round the fleet, the single blast that disemboweled the enemy and saved our ship, the grand old lady of the fleet *Christine Keeler*." He handed a sheet of paper to Bill. "I am, of course, quoting from the official report, me myself I think it was just a lucky accident."

"You're just jealous," Bill sneered, already falling in love with his new image.

"Don't get freudian with me!" the doctor screamed, then snuffled pitifully. "I always wanted to be a hero, but all I do is wait hand and foot on heroes. I'm taking that bandage off now."

He unclipped the wires that held up Bill's arm and began to

unwind the bandages while the troopers crowded around to watch.

"How is my arm, Doc?" Bill was suddenly worried.

"Grilled like a chop. I had to cut it off."

"Then what is this?" Bill shrieked, horrified.

"Another arm that I sewed on. There were lots of them left over after the battle. The ship had over 42 percent casualties and I was really cutting and chopping and sewing, I tell you."

The last bandage fell away and the troopers ahhhed with delight.

"Say, that's a mighty fine arm!"

"Make it do something."

"And a damn nice seam there at the shoulder — look how neat the stitches are!"

"Plenty of muscles too and good and long, not like the crummy little short one he has on the other side."

"Longer and darker — that's a great skin color!"

"It's Tembo's arm!" Bill howled. "Take it away!" He squirmed across the bed but the arm came after him. They propped him up again on the pillows.

"You're a lucky bowb, Bill, having a good arm like that. And your buddy's arm too."

"We know that he wanted you to have it."

"You'll always have something to remember him by."

It really wasn't a bad arm. Bill bent it and flexed the fingers still looking at it suspiciously. It felt alright. He reached out with it and grabbed a trooper's arm and squeezed. He could feel the man's bones grating together while he screamed and writhed. Then Bill looked closer at the hand and began to shout curses at the doctor.

"You stupid sawbones! You thoat doctor! Some big job — this is a *right arm*!"

"So it's a right arm — so what?"

"But you cut off my *left arm*! Now I have two right arms."

"Listen, there was a shortage of left arms. I'm no miracle worker. I do my best and all I get are complaints. Be happy I didn't sew on a leg." He leered evilly, "Or even better I didn't sew on a . . ."

"It's a good arm, Bill," the trooper said who was rubbing his recently crushed forearm. "And you're really lucky too. Now you can salute with either arm, no one else can do that."

"You're right," Bill said humbly. "I never thought of that. I'm really very lucky." He tried a salute with his left-right arm and the elbow whipped up nicely

across his chest and the fingertips quivered at his eyebrow. All the troopers snapped to attention and returned the salute. The door crashed open and an officer poked his head in.

"Stand easy, men — this is just an informal visit by the old man."

"Captain Zekial coming here!"

"I've never seen the old man . . ." The troopers chirped like birds and were as nervous as virgins at a defloration ceremony. Three more officers came through the door followed by a male nurse leading a ten-year-old moron wearing a bib and a captain's uniform.

"Uh . . . hi ya fellows . . ." the captain said.

"The captain wishes to pay his respects to you all," the first lieutenant said crisply.

"Is dat da guy in da bed?"

"And particularly wishes to pay his personal respects to the hero of the hour."

". . . Dere was sometin' else but I forgot . . ."

"And he furthermore wishes to inform the valiant fighter who saved our ship that he is being raised in grade to Fusetender First Class, which increase in rank includes an automatic reenlistment for seven years to be added to his original enlistment, and that upon dismissal from the hospital he is to go by first avail-

able transportation to the Imperial planet of Helior, there to receive the hero's award of the Purple Dart with Coalsack Nebula Cluster from the Emperor's own hand."

"... I think I gotta go to da bathroom ..."

"But now the exigencies of command recall him to the bridge and he wishes you all an affectionate farewell."

Bill saluted with both arms and the troopers stood at attention until the captain and his officers had gone, then the doctor dismissed the troopers as well.

"Isn't the old man a little young for his post?" Bill asked.

"Not as young as some," the doctor scratched through his hypodermic needles looking for a particularly dull one for an injection. "You have to remember that all captains have to be of the nobility and even a large nobility gets stretched damn thin over a galactic empire. We take what we can get." He found a crooked one and clipped it to the cylinder.

"Affirm, so he's young, but isn't he also a little stupid for the job?"

"Watch that lese majesty stuff, bowb! You get an empire that's a couple of thousand years old and you get a nobility that keeps inbreeding and you get some of

the crunched genes and defective recessives coming out and you got a group of people that are a little more exotic than most nuthouses. There's nothing wrong with the old man that a new I.Q. wouldn't cure! You should have seen the captain of the last ship I was on ..." he shuddered and jabbed the needle viciously into Bill's flesh. Bill screamed, then gloomily watched the blood drip from the hole after the hypodermic had been withdrawn.

The door closed and Bill was alone, looking at the blank wall and his future. He was a First Class Fusetender, and that was nice. But the compulsory enlistment for seven years was not so nice. His spirits dropped. He wished he could talk to some of his old buddies, then remembered that they were all dead and his spirits dropped even further. He tried to cheer himself up but could think of nothing to be cheery about until he discovered that he could shake hands with himself. This made him feel a little bit better.

He lay back on the pillows and shook hands with himself until he fell asleep.

How easy is the fall from the pinnacle of power to the depths of degradation, for success and failure are but two sides of the same coin, one the obverse

and the other the reverse, as the expression goes, and the shaking hand of fate flips this coin and no man knoweth on which side it will landeth.

Fate flipped for Bill. The same fate that had guided his fingers to the trigger that destroyed the Chinger dreadnaught failed one day to guide his fingers on a more mundane mission.

He received his medal — pinned on by the Emperor himself in a heart-warming ceremony — and as soon as the royal cortege had withdrawn the honor guard sprang on Bill and savaged him soundly.

"Sacrilege!" a colonel of marines roared as he sank his heel into Bill's quivering kidney.

"If you were one of my lads I'd have you blown from an atomic cannon!" screeched an artillery major as he mashed a fist against Bill's ear.

Unconscious and bleeding, Bill was finally dragged away by the MPs and locked behind bars. This was only the first of a series of military pokeys through which they shuttled his carcass while trying to make up their minds what to do with him. In transit he brushed against the criminal inhabitants of this secluded world and learned a form of low cunning that enabled him to survive with a minimum of effort. It was a pleasant, easy life, and in all

ways superior to his existence as a trooper.

X

The transit stockade was a makeshift building of plastic sheets bolted to bent aluminum frames and was in the center of a large quadrangle. MPs with bayoneted atom rifles marched around the perimeter of the six electrified barbed-wire fences. The multiple gates were opened by remote control and Bill was dragged through them by the handcuff robot that had brought him here.

This debased machine was a squat and heavy cube as high as his knee that ran on clanking treads, and from the top of which projected a steel bar with heavy handcuffs fastened to the end. Bill was on the end of the handcuffs. Escape was impossible because if any attempt was made to force the cuffs the robot sadistically exploded a peewee atom bomb it had in its guts and blew up itself and the escaping prisoner, as well as anyone else in the vicinity. Once inside the compound the robot stopped and did not protest when the guard sergeant unlocked the cuffs. As soon as its prisoner was freed the machine rolled into its kennel and vanished.

"Alright wiseguy, you're in *my*

charge now, and dat means trouble for you," the sergeant snapped at Bill. He had a shaven head, a wide and scar-covered jaw, small, close-set eyes in which there flickered the guttering candle of stupidity.

Bill narrowed his own eyes to slits and slowly raised his good left-right arm, flexing the bicep. Tembo's muscle swelled and split the thin prison fatigue jacket with a harsh ripping sound. Then Bill pointed to the ribbon of the Purple Dart which he had pinned to his chest.

"Do you know how I got that?" he asked in a grim and toneless voice. "I got that by killing 13 Chingers single handed in a pill-box I had been sent into. I got into this stockade here because after killing the Chingers I came back and killed the sergeant who sent me in there. Now—what did you say about trouble, sergeant?"

"You don't give me no trouble I don't give you no trouble," the guard sergeant squeaked as he skittered away. "You're in cell 13, in there, right upstairs . . ." he stopped suddenly and began to chew all the fingernails on one hand at the same time, with a nibbling crunching sound. Bill gave him a long glower for good measure, then turned and went slowly into the building.

The door to number 13 stood

open and Bill looked in at the narrow cell, dimly lit by the light that filtered through the translucent plastic walls. The double-decker bunk took up almost all of the space, leaving only a narrow passage at one side. Two sagging shelves were bolted to the far wall and, along with the stenciled message **BE CLEAN NOT OBSCENE — DIRTY TALK HELPS THE ENEMY!**, made up the complete furnishings. A small man with a pointed face and beady eyes lay on the bottom bunk looking intently at Bill. Bill looked right back and frowned.

"Come in, sarge," the little man said as he scuttled up the support into the upper bunk. "I been saving the lower for you, yes I have. The name is Blackey and I'm doing ten months for telling a second looey to blow it out . . ."

He ended the sentence with a slight questioning note that Bill ignored. Bill's feet hurt. He kicked off the purple boots and stretched out on the sack. Blackey's head popped over the edge of the upper bunk, not unlike a rodent peering out the landscape. "It's a long time to chow—how's about a dobbinburger?" A hand appeared next to the head and slipped a shiny package down to Bill.

After looking it over suspiciously Bill pulled the sealing string on the end of the plastic bag. As soon as the air rushed in and hit the combustible lining the burger started to smoke and within three seconds was steaming hot. Lifting the bun Bill squirted ketchup in from the little sack at the other end of the bag, then took a suspicious bite. It was rich, juicy horse.

"This old gray mare sure tastes like it used to be," Bill said, talking with his mouth full. "How did you ever smuggle this into the stockade?"

Blackey grinned and produced a broad stage wink. "Contacts. They bring it in to me, all I gotta do is ask. I didn't catch the name."

"Bill." Food had soothed his ruffled temper. "I was sent up on an indeterminate sentence for a crime too hideous to mention."

"What was it?" Blackey licked his lips with anticipation.

"I was given a medal by himself, the Emperor, in person and the ceremony was broadcast live to 967 billion teevee sets."

"So what's wrong with that?"

"My fly was open."

Bill swallowed the last mouthful and wiped his fingers on the blanket. "That was a good burger, too bad there's nothing to wash it down with."

Blackey produced a small bot-

tle labeled COUGH SYRUP and passed it to Bill. "Specially mixed for me by a friend in the medics. Half grain alcohol and half ether."

"Zoingg!" Bill said, dashing the tears from his eyes after draining half the bottle. He felt almost at peace with the world. "You're a good buddy to have around, Blackey."

"You can say that again," Blackey told him earnestly. "It never hurts to have a buddy, not in the troopers, the army, the navy, anywheres. Ask old Blackey, he knows. You got muscles, Bill?"

Bill lazily flexed Tembo's muscle for him.

"That's what I like to see," Blackey said in admiration. "With your muscles and my brain we can get along fine . . ."

"I have a brain too!"

"Relax it! Give it a break, while I do the thinking. I seen service in more armies than you got days in the troopers. I got my first purple heart serving with Hannibal, there's the scar right there," he pointed to a white arc on the back of his hand. "But I picked him for a loser and switched to Romulus and Remus's boys while there was still time. I been learning ever since and I always land on my feet. I saw which way the

wind was blowing and ate some laundry soap and got the trots the morning of Waterloo, and I missed but nothing I tell you. I saw the same kind of thing shaping up at the Somme—or was it Ypres?—I forget some of them old names now, and chewed a cigarette and put it into my armpit. You get a fever that way, and missed that show too. There's always an angle to figure I always say."

"I never heard of those battles. Fighting the Chingers?"

"No, earlier than that, a lot earlier than that. Wars and wars ago."

"That makes you pretty old, Blackey. You don't look pretty old."

"I am pretty old, but I don't tell people usually because they give me the laugh. But I remember the pyramids being built, and I remember what lousy chow the Assyrian army had, and the time we took over Wug's mob when they tried to get into our cave, rolled rocks down on them."

"Sounds like a lot of bowb," Bill said lazily, draining the bottle.

"Yeah, that's what everybody says, so I don't tell the old stories anymore. They don't even believe me when I show them my good luck piece." He held out a little white triangle with a ragged edge. "Tooth from a

pterodactyl. Knocked it down myself with a stone from a sling I had just invented."

"Looks like a hunk of plastic."

"See what I mean? So I don't tell the old stories anymore. Just keep re-enlisting and drifting with the tide."

Bill sat up and gaped. "Re-enlist! Why, that's suicide . . ."

"Safe as houses. Safest place during the war is in the army. The jerks in the front lines get their asses shot off, the civilians at home get their asses blown off. Guys in between safe as houses. It takes 30, 50 maybe 70 guys in the middle to supply every guy in the line. Once you learn to be a fileclerk you're safe. Who ever heard of them shooting at a fileclerk? I'm a great fileclerk. But that's just in wartime. Peacetime, whenever they make a mistake and there is peace for awhile, it's better to be in the combat troops. Better food, longer leaves, nothing much to do. Travel a lot."

"So what happens when the war starts?"

"I know 735 different ways to get into the hospitals."

"Will you teach me a couple?"

"Anything for a buddy, Bill. I'll show you tonight, after they bring the chow around. And the guard what brings the chow is being difficult about a little favor I asked him. Boy, I wish he

had a broken arm!" he sighed.

"Which arm?" Bill cracked his knuckles with a loud, rending crunch.

"Dealer's choice."

The Plastichouse Stockade was a transient center where prisoners were kept on the way from somewhere to elsewhere. It was an easy, relaxed life enjoyed by both guards and inmates with nothing to disturb the even tenor of the days. There had been one new guard, a real eager type fresh in from the National Territorial Guard, but he had had an accident while serving the meals and had broken his arm. Even the other guards were glad to see him go. About once a week Blackey would be taken away under armed guard to the Base Records Section where he was forging new records for a light colonel who was very active in the black market and wanted to make millionaire before he retired. While working on the records Blackey saw to it that the stockade guards received undeserved promotions, extra leave time and cash bonuses for non-existent medals. As a result Bill and Blackey ate and drank very well and grew fat. It was as peaceful as could possibly be until the morning after a session in the records section when Blackey returned and woke Bill,

"Good news," he said. "We're shipping out."

"What's good about that?" Bill asked, surly at being disturbed and still half stoned from the previous evening's drinking bout. "I like it here."

"It's going to get too hot for us soon. The colonel is giving me the eye and a very funny look and I think he is going to have us shipped to the other end of the galaxy where there is heavy fighting. But he's not going to do anything until next week after I finish the books for him, so I had secret orders cut for us *this* week sending us to Tabes Dorsalis where the cement mines are."

"The dust world!" Bill shouted hoarsely and picked Blackey up by the throat and shook him. "A worldwide cement mine where men die of silicosis in hours. Hell hole of the universe . . ."

Blackey wriggled free and scuttled to the other end of the cell.

"Hold it!" he gasped. "Don't go off half cocked. Close the cover on your priming pan and keep your powder dry! Do you think I would ship us to a place like that? That's just the way it is on the teevee shows, but I got the inside dope. If you work in the cement mines, roger, it ain't so good. But they got one tremendous base section there

with a lot of clerical help and they use trustees in the motor pool since there aren't enough troops there. While I was working on the records I changed your MS from fusetender which is a suicide job to driver, and here is your drive's license with qualifications on everything from a monocycle to an atomic 89-ton tank. So we get us some soft jobs and besides, the whole base is air-conditioned."

"It was kind of nice here," Bill said, scowling at the plastic card that certified to his aptitude in chauffeuring a number of strange vehicles most of which he had never seen.

"They come, they go, they're all the same," Blackey said, packing a small toilet kit.

They began to realize that something was wrong when the column of prisoners were shackled then chained together with neckcuffs and leg irons and prodded into the transport spacer by a platoon of combat MPs. "Move along!" they shouted. "You'll have plenty of time to relax when we get to Tabes Dorsalgia."

"Where are we going?" Bill gasped.

"You heard me, snap it bowb."

"You told me Tabes Dorsalis," Bill snarled at Blackey who was ahead of him in the chain. "Tabes Dorsalgia is the base on

Veneria where all the fighting is going on—we're heading for combat!"

"A little slip of the pen," Blackey sighed. "You can't win them all."

He dodged the kick Bill swung at him then waited patiently while the MPs beat Bill senseless with their clubs and dragged him aboard the ship.

XI

Veneria . . . a fog-shrouded world of untold horrors, creeping in its orbit around the ghoulish green star Hernia like some repellent heavenly trespasser newly rose from the nethermost pit. What secrets lie beneath the eternal mists? What nameless monsters undulate and gibber in its dank tarns and bottomless black lagoons? Faced by the unspeakable terrors of this planet men go mad rather than face up to the faceless. Veneria . . . swamp world, the lair of the hideous and unimaginable Venians . . .

It was hot and it was damp and it stank. The wood of the newly constructed barracks was already soft and rotting away. You took your shoes off and before they hit the floor fungus was growing out of them. Once inside the compound their chains were removed, since there was



no place for labor camp prisoners to escape to, and Bill wheeled around looking for Blackey, the fingers of Tembo's arm snapping like hungry jaws. Then he remembered that Blackey had spoken to one of the guards as they were leaving the ship, had slipped him something, and a little while later had been unlocked from the line and led away. By now he would be running the file section and by tomorrow he would be living in the nurse's quarters.

Bill sighed, let the whole thing slip out of his mind and vanish since it was just one more antagonistic factor that he had no control over and dropped down

onto the nearest bunk. Instantly a vine flashed up from a crack in the floor, whipped four times around the bunk lashing him securely to it, then plunged ten-drills into his leg and began to drink his blood.

"Grrrrk . . ." Bill croaked against the pressure of a green loop that tightened around his throat.

"Never lie down without you got a knife in your hand," a thin, yellowish sergeant said as he passed by and severed the vine, with his own knife, where it emerged from the floorboards.

"Thanks, sarge," Bill said, stripping off the coils and throwing them out the window.

The sergeant suddenly began vibrating like a plucked string and dropped onto the foot of Bill's bunk. "P-pocket . . . shirt . . . p-p-pills . . ." he stuttered through chattering teeth. Bill pulled a plastic box of pills out of the sergeant's pocket and forced some of them into his mouth. The vibrations stopped and the man sagged back against the wall, gaunter and yellower and streaming with sweat.

Jaundice and swamp fever and galloping filariasis, never know when an attack will hit me, that's why they can't send me back to combat, I can't hold a gun. Me, Master Sergeant Ferkel, the best damned flame thrower in Kirjassoff's Kut-throats, and they have me playing nursemaid in a prison labor camp. So you think that bugs me? It does not bug me, it makes me happy, and the only thing that would make me happier would be shipping off this cesspool planet at once."

"Do you think alcohol will hurt your condition?" Bill asked, passing over a bottle of cough syrup. "It's kind of rough here?"

"Not only won't hurt it but it will." There was a deep gurgling and when the sergeant spoke again he was hoarser but stronger. "Rough is not the word for it. Fighting the Chingers is

bad enough, but on this planet they have the natives, the Venians, on their side. These Venians look like moldy newts and they got just maybe enough IQ to hold a gun and pull the trigger, but it is *their* planet and they're murder out there in the swamps. They hide under the mud and they swim under the water and they swing from the trees and the whole planet is thick with them. They got no sources of supply, no army divisions, no organizations, they just fight. If one dies the others eat him. If one is wounded in the leg the others eat the leg and he grows a new one. If one of them runs out of ammunition or poison darts or whatever he just swims back a hundred miles to base, loads up and back to battle. We have been fighting here for three years and we now control one hundred square miles of territory."

"A hundred, that sounds like a lot."

"Just to a stupid bowb like you. That is ten miles by ten miles, and maybe about two square miles more than we captured in the first landings."

There was the squish-thud of tired feet and weary, mud-soaked men began to drag into the barracks. Sergeant Ferkel hauled himself to his feet and blew a long blast on his whistle.

"Alright you new men, now hear this. You have all been assigned to B squad which is now assembling in the compound, which squad will now march out into the swamp and finish the job these shagged creeps from A squad began this morning. You will do a good days work out there. I am not going to appeal to your sense of loyalty, your honor or your sense of duty . . ." Ferkel whipped out his atomic pistol and blew a hole in the ceiling through which rain began to drip. "I am only going to appeal to your urge to survive, because any man shirking, goofing off or not pulling his own weight will personally be shot dead by me. Now get out." With his bared teeth and shaking hands he looked sick enough and mean enough and mad enough to do it. Bill and the rest of B squad rushed out into the rain and formed ranks.

"Pick up da axes, pick up da picks, get the uranium out," the corporal of the armed guard snarled as they squelched through the mud towards the gate. The labor squad, carrying their tools, stayed in the center, while the armed guard walked on the outside. The guard wasn't there to stop the prisoners from escaping but to give some measure of protection from the ene-

my. They dragged slowly down the road of felled trees that wound through the swamp. There was a sudden whistling overhead and heavy transports flashed by.

"We're in luck today," one of the older prisoners said, "they're sending in the heavy infantry again. I didn't know they had any left."

"You mean they'll capture more territory?" Bill asked.

"Naw, all they'll get is dead. But while they're getting butchered some of the pressure will be off of us and we can maybe work without losing too many men."

Without orders they all stopped to watch as the heavy infantry fell like rain into the swamps ahead — and vanished just as easily as raindrops. Every once in awhile there would be a boom and flash as a teensie A-bomb went off, which probably atomized a few Venians, but there were billions more of the enemy just waiting to rush in. Small arms crackled in the distance and grenades boomed. Then over the trees they saw a bobbing, bouncing figure approach. It was a heavy infantryman in his armored suit and gasproof helmet, A-bombs and grenades strapped to him, a regular walking armory. Or rather hopping armory, since he would

have had trouble walking on a paved street with the weight of junk hung about him, so therefore moved by jumping, using two reaction rockets, one bolted to each hip. His hops were getting lower and lower as he came near. He landed 50 yards away and sank slowly to his waist in the swamp, his rockets hissing as they touched the water. Then he hopped again, much shorter this time, the rockets fizzling and popping, and he threw his helmet open in the air.

"Hey, guys," he called. "The dirty Chingers got my fuel tank. My rockets are almost out, I can't hop much more. Give a buddy a hand will you . . ." He hit the water with a splash.

"Get outta the monkey suit and we'll pull you in," the guard corporal called.

"Are you nuts!" the soldier shouted. "It takes an hour to get into and outta this thing." He triggered his rockets but they just went pffft and he rose about a foot in the water, then dropped back. "The fuel's gone! Help me you bastards! What's this, bowb-your-buddy week . . ." he shouted as he sank, then his head went under and there were a few bubbles and nothing else.

"It's always bowb-your-buddy week," the corporal said. "Get the column moving!" he ordered, and they shuffled forward.

"Them suits weigh 3,000 pounds. Goes down like a rock," the corporal said as he prodded them ahead.

If this was a quiet day, Bill didn't want to see a busy one. Since the entire planet of Veneria was a swamp no advances could be made until a road was built. Individual soldiers might penetrate a bit ahead of the road, but for equipment or supplies or even heavily armed men a road was necessary. Therefore the labor corps was building a road of felled trees. At the front.

Bursts from atom rifles steamed in the water around them and the poison darts were as thick as falling leaves. The firing and sniping on both sides was constant while the prisoners cut down trees, trimmed and lashed them together to push the road forward another few inches. Bill trimmed and chopped and tried to ignore the screams and falling bodies until it began to grow dark. The squad, now a good deal smarter, made their return march in the dusk.

"We pushed it ahead at least 30 yards this afternoon," Bill said to the old prisoner marching at his side.

"Don't mean nothing, Venians swim up in the night and take the logs away."

Bill instantly made his mind up to get out of there.

"Got any more of that joy-juice?" Sergeant Ferkel asked when Bill dropped onto his bunk and began to scrape some of the mud from his boots with the blade of his knife. Bill took a quick slash at a plank coming up through the floorboards before he answered.

"Do you think you could spare me a moment to give me some advice, sergeant?"

"I am a flowing fountain of advice once my throat is lubricated."

Bill dug a bottle out of his pocket. "How do you get out of this outfit?" he asked.

"You get killed," the sergeant told him as he raised the bottle to his lips. Bill snatched it out of his hand.

"That I know without your help," he snarled.

"Well that's all you gonna know without my help," the sergeant snarled back.

Their noses were touching and they growled at each other deep in their throats. Having proven just where they stood and just how tough they both were they relaxed, and Sergeant Ferkel leaned back while Bill sighed and passed him the bottle.

"How's about a job in the orderly room?"

"We don't have an orderly room. We don't have any records. Everyone sent here gets killed sooner or later, so who cares exactly when."

"What about getting wounded?"

"Get sent to the hospital, get well, get sent back here."

"The only thing left to do is mutiny!" Bill shouted.

"Didn't work last four times we tried it. They just pulled the supply ships out and didn't give us any food until we agreed to start fighting again. Wrong chemistry here, all the food on this planet is pure poison for our metabolisms. We had a couple of guys prove it the hard way. Any mutiny that is going to succeed has to grab enough ships first so we can get off-planet. If you got any good ideas about that I'll put you in touch with the Permanent Mutiny Committee."

"Isn't there *any* way to get out?"

"I answered that first," Ferkel told him and fell over stone drunk.

"I'll see for myself," Bill said as he slid the sergeant's pistol from his holster and slipped out the back door.

Armored floodlights lit up the forward positions facing the enemy and Bill went in the opposite direction, towards the distant

white flares of landing rockets. Barracks and warehouses were dotted about on the boggy ground but Bill stayed clear of them since they were all guarded, and the guards had itchy trigger fingers. They fired at anything they saw, anything they heard, and if they didn't see or hear anything they fired once in awhile anyway just to keep their morale up. Lights were burning brightly ahead and Bill crawled forward on his stomach to peer from behind a rank growth at a tall, floodlighted fence of barbed wire that stretched out of sight in both directions.

A burst from an atomic rifle burned a hole in the mud about a yard behind him and a searchlight swung over, catching him full in its glare.

"Greetings from your commanding officer," an amplified voice thundered from loudspeakers on the fence. "This is a recorded announcement. You are now attempting to leave the combat zone and enter the restricted headquarters zone. This is forbidden. Your presence has been detected by automatic machinery and these same devices now have a number of guns trained upon you. They will fire in sixty seconds if you do not leave. Be patriotic, man! Do your duty. Death to the Chingers! Fifty-five seconds. Would you like your

mother to know that her boy is a coward? Fifty seconds. Your Emperor has invested a lot of money in your training—is this the way you repay him? Forty-five seconds . . ."

Bill cursed and shot up the nearest loudspeaker but the voice continued from others down the length of the fence. He turned and went back the way he had come.

As he neared his barracks, skirting the front line to avoid fire from the nervous guards in the buildings, all the lights went out. At the same time gunfire and bomb explosions broke out on every side.

XII

Something slithered close by in the mud and Bill's trigger finger spontaneously contracted and he shot it. In the brief atomic flare he saw the smoking remains of a dead Venian, as well as an unusually large number of live Venians squelching to the attack. Bill dived aside instantly, so that their return fire missed him, and fled in the opposite direction. His only thought was to save his skin and this he did by getting as far from the firing and the attacking enemy as he could. That this direction happened to be into the trackless swamp he did not consider.

Survive his shivering little ego screamed and he ran on into the swamp.

Running became difficult when the ground turned to mud, and even more difficult when the mud gave way to open water. After paddling desperately for an interminable length of time Bill came to more mud. The first hysteria had now passed, the firing was only a dull rumble in the distance and he was exhausted. He dropped onto the mudbank and instantly sharp teeth sank into his buttocks. Screaming hoarsely he ran on until he ran into a tree. He wasn't going fast enough to hurt himself and the feel of rough bark under his fingers brought out all of his coanthropic survival instincts: he climbed.

High up there were two branches that forked out from the trunk and he wedged himself into the crotch, back to the solid wood and gun pointed straight ahead and ready. Nothing bothered him now and the night sounds grew dim and distant, the blackness was complete and within a few minutes his head started to nod. He dragged it back a few times, blinked about at nothing, then finally slept soundly.

It was the first gray light of dawn when he opened his gummy eyes and blinked around.

There was a little lizard perched on a nearby branch watching him with jewel-like eyes.

"Gee—you were really sacked out," the Chinger said.

Bill's shot tore a smoking scar in the top of the branch, then the Chinger swung back up from underneath and meticulously wiped bits of ash from his paws.

"Easy on the trigger, Bill," it said. "Gee—I could have killed you anytime during the night if I had wanted to."

"I know you," Bill said hoarsely. "You're Eager Beager, aren't you."

"Gee—this is just like old home week, isn't it." A centipede was scuttling by and Eager Beager the Chinger grabbed it up with three of his arms and began pulling off legs with his fourth and eating them. "I recognized you Bill, and wanted to talk to you. I've been feeling bad ever since I called you a stoolie, that wasn't right of me. You were only doing your duty when you turned me in. You wouldn't like to tell me how you recognized me, would you?" he asked, and winked slyly.

"Why don't you bowb off, Jack?" Bill growled and groped in his pocket for a bottle of cough syrup. Eager Chinger sighed.

"Well, I suppose I can't ex-

pect you to betray anything of military importance, but I hope you will answer a few questions for me." He discarded the delimbed corpse and groped about in his marsupial pouch and produced a tablet and tiny writing instrument. "You must realize that spying is not my chosen occupation, but rather I was dragged into it through my specialty which is exopology — perhaps you have heard of this discipline?"

"We had an orientation lecture once, an exopologist, all he could talk about was alien creeps and things."

"Yes — well that roughly sums it up. The science of the study of alien life forms, and of course to us you homo sapiens are an alien form." He scuttled halfway around the branch when Bill raised his gun.

"Watch that kind of talk, bowb!"

"Sorry, just my manner of speaking. To put it briefly, since I specialized in the study of your species I was sent out as a spy, reluctantly, but that is the sort of sacrifice one makes during wartime. However, seeing you here reminded me that there are a number of questions and problems still unanswered that I would appreciate your help on, purely in the matter of science, of course."

"Like what?" Bill asked suspiciously, draining the bottle and flinging it away into the jungle.

"Well — gee — to begin simply, how do you feel about us Chingers?"

"Death to all Chingers!" The little pen flew over the tablet.

"But you have been *taught* to say that. How did you feel before you entered the service?"

"Didn't give a damn about Chingers." Out of the corner of his eye Bill was watching a suspicious movement of the leaves in the tree above,

"Fine! Then could you explain to me just who it is that hates us Chingers and wants to fight a war of extermination?"

"Nobody really hates Chingers, I guess. It's just that there is no one else around to fight a war with so we fight with you." The moving leaves had parted and a great, smooth head with slitted eyes peered down.

"I knew it! And that brings me to my really important questions. Why do you homo sapiens like to fight wars?"

Bill's hand tightened on his gun as the monstrous head dropped silently down from the leaves behind Eager Chinger Beager. It was attached to a foot-thick and apparently endless serpent body.

"Fight wars? I don't know,"

Bill said, distracted by the soundless approach of the giant snake. "I guess because we like to, there doesn't seem to be any other reason."

"You *like* to!" the Chinger squeaked, hopping up and down with excitement. "No civilized race could *like* wars, death, killing, maiming, rape, torture, pain to name just a few of the concomitant factors. Your race can't be civilized!"

The snake struck like lightning and Eager Beager Chinger vanished down its spine-covered throat with only the slightest of muffled squeals.

"Yeah . . . I guess we're just not civilized," Bill said, gun ready, but the snake kept going on down. At least fifty yards of it slithered by before the tail flipped past and it was out of sight. "Serves the damn spy right," Bill grunted happily and pulled himself to his feet.

Once on the ground Bill began to realize just how bad a spot he was in. The damp swamp had swallowed up any marks of his passage from the night before and he hadn't the slightest idea in which direction the battle area lay. The sun was just a general illumination behind the layers of fog and cloud, and he felt a sudden chill as he realized how small were his chances of finding his way back. The invasion

area, just ten miles to a side, made a microscopic pinprick in the hide of this planet. Yet if he didn't find it he was as good as dead. And if he just stayed here he would die, so, picking what looked like the most likely direction, he started off.

"I'm pooped," he said, and was. A few hours of dragging through the swamps had done nothing except weaken his muscles, fill his skin with insect bites, drain a quart or two of blood into the ubiquitous leeches and deplete the charge in his gun as he killed a dozen or so of the local lifeforms that wanted him for breakfast. He was also hungry and thirsty. And still lost.

The rest of the day just capitulated the morning so that when the sky began to darken he was close to exhaustion and his supply of cough medicine was gone. He was very hungry when he climbed a tree to find a spot to rest for the night and he plucked a luscious looking red fruit.

"Supposed to be poison," he looked at it suspiciously, then smelled it. It smelled fine. He threw it away.

In the morning he was much hungrier. "Should I put the barrel of the gun in my mouth and blow my head off?" he asked himself, weighing the atomic

pistol in his hand. "Plenty of time for that yet. Plenty of things can still happen," yet he didn't really believe it. Suddenly he heard voices coming through the jungle towards him, human voices. He settled behind the limb and aimed his gun in that direction.

The voices grew, then a clanking and rattling. An armed Venian scuttled under the tree, but Bill held his fire as other figures loomed out of the fog. It was a long file of human prisoners wearing the neckirons used to bring Bill and the others to the labor camp, all joined together by a long chain that connected the neckirons. Each of the men was carrying a large box on his head. Bill let them stumble by underneath and kept a careful count of the Venian guards. There were five in all with a sixth bringing up the rear.

When this one had passed underneath the tree Bill dropped straight down on him, braining him with his heavy boots. The Venian was armed with a Chinger-made copy of a standard atomic rifle and Bill smiled wickedly as he hefted its familiar weight. After sticking the pistol into his waistband he crept after the column, rifle ready. He managed to kill the fifth guard by

walking up behind him and catching him in the back of the neck with the rifle butt. The last two troopers in the file saw this but had enough brains to be quiet as he crept up on number four. Some stir among the prisoners or a chance sound warned this guard and he turned about, raising his rifle. There was no chance now to kill him silently so Bill burned his head off and ran as fast as he could towards the head of the column. There was a shocked silence when the blast of the rifle echoed through the fog and Bill filled it with a shout.

"Hit the dirt—FAST!"

The soldiers dived into the mud and Bill held his atomic rifle at his waist as he ran, fanning it back and forth before him like a water hose and holding the trigger on full automatic. A continuous blast of fire poured out a yard above the ground and he squirted it in an arc before him. There were shouts and screams in the fog and then the charge in the rifle was exhausted. Bill threw it from him and drew the pistol. Two of the remaining guards were down and the last one was wounded and got off a single badly aimed shot before Bill burned him too.

"Not bad," he said, stopping and panting. "Six out of six."

There were low moans coming

from the line of prisoners and Bill curled his lip in disgust at the three men who hadn't dropped at his shouted command.

"What's the matter?" he asked, stirring one with his foot, "never been in combat before?" But this one didn't answer because he was charred dead.

"Never . . ." the next one answered, gasping in pain. "Get the corpsman, I'm wounded, there's one ahead in the line. Oh, oh, why did I ever leave the *Chris' Keeler!* Medic."

Bill frowned at the three gold balls of a fourth lieutenant on the man's collar, then bent and scraped some mud from his face. "You! The laundry officer!" he shouted in outraged anger, raising his gun to finish the job.

"Not I!" the lieutenant moaned, recognizing Bill at last. "The laundry officer is gone, flushed down the drain! This is I, your friendly local pastor, bringing you the blessings of Ahura Mazda, my son, and have you been reading the Avesta every day before going to sleep?"

"Bah!" Bill snarled, he couldn't shoot him now, and walked over to the third wounded man.

"Hello Bill . . ." a weak voice said. "I guess the old reflexes are slowing down . . . I can't blame you for shooting me, I

should have hit the dirt like the others . . ."

"You're damn right you should have," Bill said looking down at the familiar, loathed, tusked face. "You're dying Deathwish, you've bought it."

"I know," Deathwish said and coughed. His eyes were closed.

"Wrap this line in a circle," Bill shouted. "I want the medic up here." The chain of prisoners curved around and they watched as the medic examined the casualties.

"A bandage on the looie's arm takes care of him," he said. "Just superficial burns. But the big guy with the fangs has bought it."

"Can you keep him alive?" Bill asked.

"For awhile, no telling how long."

"Keep him alive." Bill looked around at the circle of prisoners. "Any way to get those neckirons off?" he asked.

"Not without the keys," a burly infantry sergeant answered, "and the lizards never brought them. We'll have to wear them until we get back. How come you risked your neck saving us?" he asked suspiciously.

"Who wanted to save you?" Bill sneered. "I was hungry and I figured that must be food you were carrying."

"Yeah, it is," the sergeant

said, looking relieved. "I can understand now why you took the chance."

Bill broke open a can of rations and stuffed his face.

The dead man was cut from his position in the line and the two men, one in front and one in back of the wounded Deathwish, wanted to do the same with him. Bill reasoned with them, explained the only human thing to do was to carry their buddy, and they agreed with him when he threatened to burn their legs off if they didn't. While the chained men were eating, Bill cut two flexible poles and made a stretcher by slipping three donated uniform jackets over them. He gave the captured rifles to the burly sergeant and the most likely looking combat veterans, keeping one for himself.

"Any chance of getting back?" Bill asked the sergeant, who was carefully wiping the moisture from his gun.

"Maybe. We can backtrack the way we come, easy enough to follow the trail after everyone dragged through. Keep an eye peeled for Venians, get them before they can spread the word about us. When we get in earshot of the fighting we try and find a quiet area—then break through. A fifty-fifty chance."

"Those are better odds for all of us than they were about an hour ago."

"You're telling me. But they get worse the longer we hang around here."

"Let's get moving."

Following the track was even easier than Bill had thought, and by early afternoon they heard the first signs of firing, a dim rumble in the distance. The only Venian they had seen had been instantly killed. Bill halted the march.

"Eat as much as you want, then dump the food," he said. "Pass that on. We'll be moving fast soon." He went to see how Deathwish was getting on.

"Badly—" Deathwish gasped, his face white as paper. "This is it, Bill . . . I know it . . . I've terrorized my last recruit . . . stood on my last pay line . . . had my last shortarm . . . so long—Bill . . . you're a good buddy . . . taking care of me like this . . ."

"Glad you think so, Deathwish, and maybe you'd like to do me a favor." He dug in the dying man's pockets until he found his noncom's notebook, then opened it and scrawled on one of the blank pages. "How would you like to sign this, just for old time's sake—Deathwish?"

The big jaw lay slack, the

evil red eyes open and staring.

"The dirty bowb's gone and died on me," Bill said disgustingly. After pondering for a moment he dribbled some ink from the pen onto the ball of Deathwish's thumb and pressed it to the paper to make a print.

"**M**edic!" he shouted, and the line of men curled around so the medic could come back. "How does he look to you?"

"Dead as a herring," the corpsman said after his professional examination.

"Just before he died he left me his tusks in his will, written right down here, see? These are real vat-grown tusks and cost a lot. Can they be transplanted?"

"Sure, as long as you get them cut out and deep froze inside the next twelve hours."

"No problem with that, we'll just carry the body back with us." He stared hard at the two stretcher bearers and fingered his gun, and they had no complaints. "Get that lieutenant up here."

"Chaplain," Bill said, holding out the sheet from the notebook, "I would like an officer's signature on this. Just before he died this trooper here dictated his will, but was too weak to sign it, so he put his thumbprint on it. Now you write below it

that you saw him thumbprint it and it is all affirm and legal-like, then sign your name."

"But — I couldn't do that my son. I did not see the deceased print the will and glmpf . . ."

He said glmpf because Bill had poked the barrel of the atomic pistol into his mouth and was rotating it, his finger quivering on the trigger.

"Shoot," the infantry sergeant said, and three of the men who could see what was going on were clapping. Bill slowly withdrew the pistol.

"I shall be happy to help," the chaplain said, grabbing for the pen.

Bill read the document, grunted in satisfaction, then went over and squatted down next to the medic. "You from the hospital?" he asked.

"You can say that again, and if I ever get back into the hospital I ain't never going out of it again. It was just my luck to be out picking up combat casualties when the raid hit."

"I hear that they aren't shipping any wounded out. Just putting them back into shape and sending them back into the line."

"You heard right. This is going to be a hard war to live through."

"But some of them must be wounded too badly to send back into action," Bill insisted.

"The miracles of modern medicine," the medic said indistinctly as he worried a cake of dehydrated luncheon meat. "Either you die or you're back in the line in a couple of weeks."

"Maybe a guy gets his arm blown off?"

"They got an icebox full of old arms. Sew a new one on and bango, right back into the line."

"What about a foot?" Bill asked, worried.

"That's right — I forgot! They got a foot shortage. So many guys lying around without feet that they're running out of bed-space. They were starting to ship some of them offplanet when I left."

"You got any pain pills?" Bill asked, changing the subject. The medic dug out a white bottle.

"Three of these and you'd laugh while they sawed your head off."

"Give me three."

"If you ever see a guy around what has his foot shot off you better quick tie something around his leg just over the knee, tight, to cut the blood off."

"Thanks buddy."

"Let's get moving," the infantry sergeant said. "The quicker we move the better our chances."

Occasional flares from atomic rifles burned through the foilage overhead and the thud-thud of

heavy weapons shook the mud under their feet. They worked along parallel with the firing until it had died down, then stopped. Bill, the only one not chained in the line, crawled ahead to reconnoiter. The enemy lines seemed to be lightly held and he found the spot that looked the best for a breakthrough. Then, before he returned, he dug the heavy cord from his pocket that he had taken from one of the ration boxes. He tied a tourniquet above his right knee and twisted it tight with a stick, then swallowed the three pills. He stayed behind some heavy shrubs when he called to the others.

"Straight ahead, then sharp right before that clump of trees. Let's go — and FAST!"

Bill led the way until the first men could see the lines ahead. Then he called out, "What's that?" and ran into the heavy foilage. "Chingers!" he shouted and sat down with his back to a tree.

He took careful aim with his pistol and blew his right foot off.

"Get moving fast!" he shouted and heard the crash of the frightened men through the undergrowth. He threw the pistol away, fired at random into the trees a few times, then dragged to his feet. The atomic rifle

made a good enough crutch to hobble along on and he did not have far to go. Two troopers, they must have been new to combat or they would have known better, left the shelter to help him inside.

"Thanks, buddie," he gasped, and sank to the ground. "War sure is hell."

XIII

The martial music echoed from the hillside, bouncing back from the rocky ledges and losing itself in the hushed green shadows under the trees. Around the bend, stamping proudly through the dust, came the little parade led by the magnificent form of a one-robot-band. Sunlight gleamed on its golden limbs and twinkled from the brazen instruments it worked with such enthusiasm. A small formation of assorted robots rolled and clattered in its wake and bringing up the rear was the solitary figure of the grizzle-haired recruiting sergeant, striding along strongly, his rows of medals ajingle. Though the road was smooth the sergeant lurched suddenly, stumbling, and cursed with the rich proficiency of years.

"Halt!" he commanded, and while his little company braked to a stop he leaned against the

stone wall that bordered the road and rolled up his right pants leg. When he whistled one of the robots trundled quickly over and held out a tool box from which the sergeant took a large screwdriver and tightened one of the bolts in the ankle of his artificial foot. Then he squirted a few drops from an oil can onto the joint and rolled the pants leg back down. When he straightened up he noticed that a robot-mule was pulling a plow down a furrow in the field beyond the fence a farmlad guided it.

"Beer!" the sergeant barked, then, "*A Spacemen's Lament.*"

"That's sure pretty music," the plowboy said.

"Join me in a beer," the sergeant said, sprinkling a white powder into it.

"Don't mind iffen I do, sure is hottern'n H - - -out here today."

"Say *hell*, son."

"Momma don't like me to cuss. You sure do have long teeth, mister."

The sergeant twanged a tusk. "A big fellow like you shouldn't worry about a little cussing. If you were a trooper you could say *hell* — or even *bowb* — if you wanted to, all the time." •

"I don't think I'd want to say anything like *that*," he flushed redly under his deep tan. "Thanks for the beer, but I gotta be ploughing on now."

Momma said I was to never talk to soldiers."

"Your momma's right, a dirty, cussing, drinking crew the most of them. Say, would you like to see a picture here of a new model robomule that can run 1,000 hours without lubrication?" The sergeant held his hand out behind him and a robot put a viewer into it.

"Why that sounds nice!" The farmlad raised the viewer to his eyes and looked into it and flushed an even deeper red. "That's no mule, mister, that's a *girl* and her clothes are . . ."

The sergeant reached out swiftly and pressed a button on the top of the viewer. Something went *thunk* inside of it and the farmer stood, rigid and frozen. He did not move or change expression when the sergeant reached out and took the little machine.

"Take this stylo," the sergeant said, and the other's fingers closed on it. "Now sign this form, recruits' signature."

"My Charlie! What are you doing with my Charlie!" an ancient, gray-haired woman wailed as she scrambled toward them.

"Your son is now a trooper for the greater glory of the Emperor," the sergeant said, and waved over the robot tailor.

"No — please!" the woman

begged, clutching the sergeant's hand and dribbling tears onto it. "I've lost one son, isn't that enough," she blinked up through the tears, then blinked again. "But you — you're my boy! My Bill come home! Even with those teeth and the scars and one black hand and one white hand and one artificial foot, I can tell, a mother always knows!"

The sergeant frowned down at the woman. "I believe you might be right," he said. "I thought Phigerinadon II was familiar."

The robot tailor had finished his job, the red paper jacket shone bravely in the sun, the one-molecule-thick boots gleamed. "Fall in," Bill shouted.

"Billy, Billy . . ." the woman wailed, "this is your little brother Charlie! You wouldn't take your own little brother into the troopers, would you?"

Bill thought about his mother, then he thought about his baby brother, Charlie, then he thought of the one month that would be taken off of his enlistment time for every recruit he brought in, and he snapped his answer back.

"Yes," he said.

The music blared, the soldiers marched, the mother cried — as mothers have always done — and the brave little band tramped down the road and over the hill and out of sight into the sunset.

— HARRY HARRISON

THE RULES OF THE ROAD

by NORMAN SPINRAD

*Anyone who dared might enter the
maze from the stars, but no one
would return alive — or human!*

The great silver dome sat in the desert at Yucca Flats. It was featureless, save for an innocent-appearing open entrance-way, but there was something about it that shrieked: *alien*. The silver shimmer was not quite the shimmer of silver. Rather it was more like the silver of shimmer.

The tanks, machine-gun emplacements and foxholes surrounding the dome confirmed the sense of alienness. The dome was surrounded and cordoned off. Whether it was being guard-

ed or contained was a moot question.

Near the opening in the dome a tent had been pitched. The flag of a three-star general flew from a makeshift flagpole. Inside the tent were a half-dozen canvas folding chairs, an elaborate radio setup, a large map table that seemed to serve no useful function, five assorted colonels, Lieutenant General Richard Brewster—a middle-aged man with the look of an athlete gone to fat—and one

lone civilian, looking plucked and out of place amidst all that khaki plumage.

General Brewster eyed the civilian with cold resignation.

"I've lost ten men in there already," he said, in a tone of voice like a poker player describing a particularly bad run of cards.

"Ten men, and we don't know any more than when we started." Brewster stared out the open tent flap at the entrance to the dome. "Only one thing we know," he said. "It's from the stars."

"Interesting," said the civilian flatly. He was a wiry man, not short, not tall. His face showed even more tension than his spare body. His mouth seemed frozen in a perpetual sour sneer, his expression appeared dead and juiceless. Only his large dark eyes betrayed him. They shifted purposefully from focus to focus, absorbing, categorizing, analyzing.

"*Interesting?* Is that all you have to say, Lindstrom? Interesting? It's from the stars, man. We tracked it from beyond the orbit of Pluto. Don't you understand? It's a spaceship from another solar system. It's the key to the stars."

"That's what it is to you," said Lindstrom. "But what is it to whatever sent it here? Are you so sure *they* intend it as a key

to the stars? What about those ten men you sent in who never came out? Do you think *they're* so sure it's the key to the stars?"

"What are you leading up to, man?" spat Brewster, with unconcealed distaste.

"Just that you know *nothing* about why that thing came here. Ten men go in, and none of them come out. Maybe it's not here to give us the stars at all. Maybe it's purpose is as alien as its manufacture. Or maybe—" Lindstrom paused and allowed himself a grin.

"Maybe it's just a better mousetrap," he said.

"Well," said Brewster, "will you or won't you? If you're trying to point out how dangerous it is, you're wasting your time. I've lost ten men as it is. I know damn well it's dangerous. I've been told you're not afraid of danger. I've been told you *enjoy* it."

Lindstrom laughed brittly. "In a way," he said. "It's not that I enjoy danger, General. It's just that I need it. The question is, how much do you think you need *me*?"

"What do you mean?"

"I mean two hundred and fifty thousand tax-free dollars. Take it or leave it."

"Payable if you succeed in telling us what's inside the dome?"

"What else?"

Brewster nodded. "Okay, you're on."

Bert Lindstrom was aware of his glamor only when he wanted a woman. Then it proved most useful; it was a well-honed, finely-crafted tool. There were plenty of women who could resist the soldier of fortune myth, to be sure, but there were many more who could not. The probabilities were all on his side.

And odds were Bert Lindstrom's religion.

Lindstrom was a calculating man. He would undertake nothing that did not seem to offer an odds on chance of success. Nothing, from seduction to assassination.

Yet he would never fail to accept a challenge when the odds were in his favor — no matter if he were risking a dime or his life.

For in his system of values, there was no real difference. It was not *what* was being risked that counted, it was the risk itself. His life meant little to him when he was not risking it. Only when he was gambling with his existence did it come to have meaning — then it was the stake, the challenge, the risk.

Lindstrom did not seek death. He risked his life only when he felt that the odds were on his side. He did not seek death, but

he had to be near it, he had to risk it, for only at the moment of risk could his life have any meaning.

And this was the best risk in a life of risks. Not necessarily because it was the longest shot of all. Lindstrom had the professional risk-taker's contempt for soldiers who took risks on orders.

That ten soldiers had not come out was a thing of little import.

What was interesting was that the dome from the stars was a total unknown. Even the odds on coming out were incalculable. They might be in his favor, they might not. He was betting his instinctive feelings about himself against a complete unknown.

If he had set up the situation himself in a laboratory he could not have contrived a more perfect risk.

The hot desert wind blew at Lindstrom's back as he approached the entrance to the dome.

The soldiers who had not come out had been armed to the teeth. Therefore Lindstrom was not.

He carried only his old .45, a machete which was more a luck-charm than anything else, a coil of rope, an all-purpose utility knife and a flashlight.

The entrance was little more

than a door-sized hole in the material of the dome. Lindstrom peered inside. He could see nothing but blackness. He drew his gun, turned on the flashlight and stepped inside.

As soon as he crossed the threshold, there was light. It did not seem to come from anywhere, it just was.

In the pearly luminescence, he could see he was standing at the mouth of a tunnel, a smooth, round, somehow almost colorless tunnel, that curved crazily upwards and leftwards in an arc so steep that it seemed impossible to hold one's footing.

Nevertheless, Lindstrom decided to try to climb it. Although the material of the tunnel seemed glass-smooth, it did not have a low frictional coefficient. It was more like walking on concrete than glass.

Stranger still, although his eyes told him that he was walking up a curve at an impossible angle, his body tilted almost forty degrees from the vertical, his kinesthetic senses told a different story. The force of gravity remained perpendicular to the floor of the tunnel, no matter what angle the tunnel took to the Earth's surface, so that he was walking upright, as if the tunnel had a private gravity all its own.

Lindstrom was somewhat

frightened: the instinctual fear of the unknown. This he had, of course, expected. *Fear* meant that there was danger, risk. And risk meant that he was *living*.

The tunnel came to a fork. Decision number one. Had this been the point at which the soldiers had made the wrong calculation? Lindstrom was sure that surviving in the dome was a matter of making the proper calculations, the correct decisions. Either that, or there was no way of surviving. And that was a possibility not worth considering—since if it were true, the game was already lost.

It was like walking on a ledge over a precipice in the dark. You knew that there was a safe path and you knew that there was a point beyond which death lurked. But you had no way of knowing how wide the ledge was, how much margin for error you had.

There was nothing to choose between the two forks. The one on the right curved up, the one on the left down. Otherwise they were identical. A random choice.

Okay, thought Lindstrom. He hesitated for only a moment, and then, for no reason in particular, took the right-hand turn.

He had only gone a few steps, the intersection was just behind him, when he felt a sudden flash of heat at his back.

He whirled in time to see a solid pillar of fire engulf the crotch of the intersection, the spot where he had stood moments ago pondering his choice.

Lesson number one, he thought. No Hamlets allowed. When faced with a decision, *make it*, one way or the other. Don't temporize, or you'll be vaporized.

The tunnel wound on for an indeterminable distance. Then it ended. Or, from another point of view, took an abrupt ninety-degree turn and became a bottomless, black, circular hole.

Lindstrom shined his light into the hole. The beam petered out in the blackness. The hole seemed made of the same material as the tunnel. There was nothing to secure the rope to.

Now what? thought Lindstrom grimly. And how much time do I have? He remembered the pillar of fire at the fork.

He felt that weird, timeless, floating exhilaration that he only experienced at those times when he knew that death was near, and had the time to contemplate it.

The hole was like the tunnel. He must go forward, or . . .

Not *like* the tunnel. It *was* the tunnel. Or at least it should be.

Fatalistically he dangled his feet into the hole, until his soles contacted its sides. Then he

"stood up" — or rather stood down.

Quite suddenly, he was standing upright in what had been the hole. Now it was just more of the same tunnel. The thing actually did have a gravity of its own.

Lesson number two, he thought. This place has its own rules. Learn them and obey them.

It was highly probable that none of the soldiers had gotten this far. This was a place that demanded a cold mathematical intimacy with death. It was a place where the greatest risk of all was *not* to take risks.

It was no place for a man under orders.

Lindstrom felt calmer now; he had dared and he had won. The fear that he had left was not a paralyzer, it was a tonic, the satisfied fear that a matador feels when he realizes that he is facing a truly great bull.

He wandered further along the tunnel, and with every passing minute, the calmness he felt he had earned diminished.

This was not ordinary mortal danger — Lindstrom had lived on speaking terms with death too long for mere danger to be extraordinary. It was something far worse. He was thinking too much as he walked, and this was a place that was not to be thought about, because it was a

place without rules . . . which is one symptom of madness . . .

There might be no rules, he thought, but there must be a purpose. Something had brought the dome to Earth, something intelligent, and intelligence implies purpose.

But what if it really were just a giant mousetrap?

But that was ridiculous. If they had wanted merely to kill him, they could have done it long ago. The dome was not only their creation, it was a universe in itself. Inside the dome, they could alter the very rules of existence. No, the rules were set up so that it was possible to survive. Fantastically difficult, but *possible*.

That was all he had to cling to. The odds against survival might be astronomical, but survival was at least a possibility.

I can die, he thought. Therefore I can live.

In the distance, around a bend, the tunnel ended. It opened into a large domed chamber. The chamber was lit with the same pearly light as the tunnel, and it seemed to be made of the same substance.

It was a smooth, featureless room. A dead end. It was empty.

A voice that was not a voice nibbled at his mind.

"You have passed the entrance

examination," it "said". "Are you ready?"

"Ready for what?"

"Ready."

The single word had many nuances. It seemed to Lindstrom that the voice in his mind was intimate with his entire being. *Ready* . . . Ready was the word that described his entire life. Ready seemed to imply acceptance and belligerence at the same time. Ready to accept possible death, and ready to fight to cling to life. Ready to wait, and ready to make instant decisions.

"Yes," said the voice, "yes."

"Why?" asked Lindstrom.

"Why all this? Why . . ."

"Your General Brewster was right," said the voice. "In a way, this is a spaceship. A starship. For your people, it can be the key to the universe. If you are ready. If you can change."

"Change to what?" said Lindstrom.

"Change," said the voice. "Not change to what. Adapt to that which is constantly changing. Live on a tightrope strung over nothingness. Your race is now reaching for the planets of your solar system. A tiny beginning. You have conquered your world by adapting it to your needs. But the universe will not be adapted. An infinity of deaths awaits you out there. Death you cannot now even conceive of."

"I've never been afraid of death," snapped Lindstrom.

"You have always been afraid of death," said the voice. "It is your very fear which allows you to face it. But fear is not enough."

"What else is there?"

"You will learn. Here you will learn, or you will die."

"Why? Why?"

"Perhaps you are ready to begin to learn why," said the voice. "Behold the road to the stars."

He was in a place that was terror. It was no place at all. It was everywhere. He was at the same time in a lightless blackness, and the mad dissociated core of a sun. It was a space with no dimensions. It was a space with an infinity of dimensions.

He had no senses. He had senses that could not exist. He tasted color. He saw time unravelled like a vast ball of twine about him. He heard the creation of the universe, and he smelt the acrid stench of its eventual death.

Entropy ran forward, backward, in circles. He was bigger than the entire universe; it nestled in his navel. He stood on the non-existent surfaces of a trillion electrons.

He was an insect, a star, a void, a galaxy.

He screamed and screamed and screamed and screamed . . .

He burned and froze, exploded and imploded, his mind was boiled in alien thoughts unspeakably foul. He rolled in beauty so hideous that he died an infinity of deaths from pleasure . . .

"Stop. Stop. Stop!" His cries echoed from the walls of existence and rebounded back to sting his flesh like a geometrically breeding nest of angry hornets . . .

"Enough," said the voice.

He was back in the featureless chamber.

"W-what . . . *what was it?*"

"That," said the voice, "is the real universe. All else, is illusion, a partial truth, the projection in three dimensions of a reality with an infinity of dimensions. *That* is the road to the stars."

"You mean we have to learn to navigate in *that*? To remain sane long enough to find our way? It's impossible!"

"No," said the voice. "That is the real universe. It is not enough to learn to travel through it. You must learn to live in it."

"In it?" exclaimed Lindstrom. "In that madness?"

"It is reality," said the voice. "The universe is not as tidy as you would like it to be. Time is not really a straight line, nor space three-dimensional. It is possible to be all places at once."

It is possible to be all times at once. Your race's view of the universe is pathetically limited. Limited, perhaps to preserve your sanity."

Lindstrom felt his mind perched on the edge of a fathomless abyss. He felt the bonds of reality crumbling about him. What, after all, was reality? Was it really this unspeakable horror, this mad, murderous confusion . . . ?

"Yes," said the voice, "you are looking down into an abyss. But you must do more, you must learn to jump willingly into it. In the real universe, laws of nature are not constant. The rules themselves vary, according to rules for rules, which in turn vary according to still higher orders or rules . . ."

"Stop. Stop. No one can cope with a thing like that. I don't want to know any more. I—"

"The choice is not yours," said the voice. "No human will be permitted to leave this place unchanged. This chamber is a dead end. There is no other passage out but the way you came, and that tunnel is sealed to you forever."

"You mean you intend to keep me a prisoner here for the rest of my life?"

"No," said the voice. "There is no passage out, but there is a way out. Either you will learn it, or you will die. We begin."

He was in a space with four dimensions. It hurt his mind. There was a fourth dimension that was somehow at right angle to all three normal directions . . .

His body was . . . different. He was enclosed in a cubical box of some dull metal. Enclosed on all six sides. Slowly the walls of the box began to contract in on him . . .

He was trapped. He was surrounded on all six sides.

But in *this* space, a cube did not have six sides, it had *thirty-six*.

He did a thing that strained his mind near breaking. He moved at right angles to all six faces of the contracting cube, simultaneously.

He was out.

And he was a point in a space with no dimensions. He was every point in the space, since all points coincided.

He was trapped in a space with no dimensions. There could be no motion . . .

But *time* existed, and in this place time had three dimensions. The special point that was Lindstrom wriggled in three temporal dimensions, and became a temporal solid, and thus . . .

He was back in "normal" space-time.

And was whisked into a star-filled blackness . . . But the blazing suns were also the nuclei of

the atoms of his body, corresponding, one for one, with each other, macrocosm and microcosm.

He did a thing with his mind for which there are no words, and he was back once more in the featureless chamber . . .

And was transported to even stranger othernesses . . . An infinity of places, dimensions and othernesses for which there are not even the ghosts of concepts.

He felt a strangeness in his mind, a complexity beyond complexity, a revelation of new and unexpected textures in his psyche. Time was flux, space was flux, eternity was a variable.

There came a time when he stood, naked, alone and homesick, on the surface of some far-off planet, looking up at a small star he knew was Sol. He remembered the spaces he had seen — spaces of no dimensions, an infinity of dimensions, spaces that were not spaces, but times.

There was a way back to Earth.

He did something with his mind, and the surface of the planet vanished like mist. His body floated in total blackness. He felt it expand and contract rhythmically, from the size of an electron to the size of the universe . . . He caught it in a phase where each of its atoms corresponded to a star in the Galaxy.

Then he let his entire mass

slide down the hill of space-time into one of the sun-atoms, the one called "Sol", to one of its electrons called "Earth."

He was back in the chamber.
And he knew the way out.

General Brewster stood outside his tent, staring at the silver dome, and wondering whether it was time to try something else.

"Lindstrom's been in there two days," he said to a nervous-looking colonel. "I think we can assume that whatever happened to the others happened to him."

"What now, sir?"

"I don't know . . . I just don't know. I suppose we could try to blow the thing open, but —"

A man suddenly appeared out of nowhere. He was standing just outside the dome. He was a wiry man, not short, not tall . . .

"What — it's Lindstrom."

The being that had been Bert Lindstrom began to walk slowly toward the tent. It had two arms, two legs, two eyes, a nose, a mouth. It was, in fact, the perfect image of the man who had entered the dome.

But when Lindstrom was close enough for Brewster to see into his eyes, the general was dreadfully sure that the creature facing him was something other than human.

— NORMAN SPINRAD

BALLAD OF THE

Among the wild Reguleans
we trade in beer and hides
for sacks of mMomimotl leaves
and carcasses of brides.
They love 'em and they leave 'em,
once affection's been displayed,
to the everloving merchants
of the Interstellar Trade.

Chorus: Don't throw that bride away, friends;
don't turn that carcass loose.
What's only junk on Regulus
is gold on Betelguese.

We potter out to Betelguese
with crates of brides and leaves,
and what the Betelgueseans do
with both no one believes.
They weep, though, while they're doin' it,
great bottles full of tears,
which we stow in the afterhold
between the bales of ears.

Chorus: Don't waste your weeps on Betelguese,
don't let your teardrops fade.
Those teardrops are the life-blood, friends,
of Interstellar Trade.

INTERSTELLAR MERCHANTS

[Ca. 2400 C. E.]

On Arcturus eleven they
are connoisseurs of wine
and think the bottled Betel-juice
a vintage rare and fine.
They buy the bales of Betel ears
for making mating hats,
and, in exchange, we take aboard
Arcturan worms and bats.

Chorus: Don't step on that Arcturan worm,
for once it's been fileted
it's worth its weight in platinum
to Interstellar Trade.

On Terra, sauce of worm filet's
an epicurean dish
with aphrodisiac side-effects
beyond one's fondest wish,
the only antidote to which
(least Terrans feel dismayed)
is serum of Arcturan bat
from Interstellar Trade.

Chorus: Fill up the holds with hides, my boys,
you've spent what you were paid.
I wonder what's on Scorpii
for Interstellar Trade!

— SHERI S. EBERHART

**for
your
information**



BY WILLY LEY

THE RAREST ANIMALS

For the last sixty years zoologists and many other people who love wildlife have been worrying about a problem that does not even occur to a real estate dealer or the manager of the Friendly Neighborhood Household Finance office. It is the fact that our earth is growing poorer by a species of animal life every decade or so. And during

the last twenty years this worry has taken a sharp turn upward for two reasons: the general population explosion and the fact that there are many new and recently independent nations in South East Asia and in Africa. I am, on principle, quite pleased about the fact that these nations are now independent. I am even willing to admit that practically all of their governments know how sad it would be if the wildlife of their areas disappeared. Unfortunately they don't do much about it.

British and German scientists who flew to Africa for private inspections have stated with both anger and concern that things are not as pretty by far as the government handouts would have it. Sure, there are wildlife preserves. Often they actually have boundary markers. But most of them are not policed and poachers, even if caught, are never prosecuted. Trying to convince the people concerned sounds like a hopeless task; they simply do not understand the need for conservation. When told that without conservation the zebras and gnus and antelopes will be gone one day, they answer that cattle taste better.

Fortunately the larger forms of the African fauna are still numerous enough so that they can be saved. We have seen in

the past what can be done even at a late hour — the American bison is an impressive example of this.

At the time the thirteen colonies declared their independence there were an estimated sixty million bison on the North American continent. After the railroads had been built across the continent — and in spite of a few protective laws passed by states like Kansas and Colorado — the bison were virtually hunted out of existence. William T. Hornaday of the New York Zoological Park wrote the *Smithsonian Report* for 1887 and entitled it "The Extirpation of the American Bison", predicting that the species would be extinct within less than two decades. Since a census taken by Hornaday in 1889 showed that there were only 1091 bison still living (two-thirds of them in Canada) his prediction would probably have come true if nothing had been done.

But Hornaday, in 1905, founded the American Bison Society which gained the support of Theodore Roosevelt. Bison sanctuaries were founded, stocked and protected and forty-five years later the number of bison had grown to more than 40,000. It is even necessary now to slaughter surplus animals from time to time to keep the herds from deteriorating.



Fig. 1. The "Tasmanian Wolf".
Does It Still Exist?

Another pleasing example is the story of a large and ungainly deer called Milu or Pere David's Deer, for its "discoverer" was the French missionary Pere Armand David who went to China in 1862. I put the word "discoverer" in quotation marks because Father David did not discover the deer in the usual manner, that is in the open, as he did the Giant Panda. The deer existed only in one place, the emperor's private hunting park. Father David, by climbing the wall, verified the existence of a species of deer unknown to science and then arranged for a few specimens to be shipped to the *Jardin des Plantes* in Paris.

After the wall of bureaucratic secrecy had been breached the embassies of other countries became active. The Zoological Garden in Berlin obtained a specimen via a diplomatic exchange of some kind and the Duke of Bedford bought several. This purchase saved the Milu.

In 1895 there was a flood of the Hun Ho river that toppled the wall of the Imperial Park in several places. The starving peasants, made homeless by the same flood, killed and ate every animal in sight, including all the Milus. The specimens in the various zoological parks died of old age one by one and only the small herd at Woburn Abbey on the estates of Duke of Bedford increased. In spite of a setback during the first World War the herd did well. Now there are close to three hundred Milus in existence, at Woburn and in many zoological gardens.

There are a few more examples of this kind. Some thirty years ago the koalas of Queensland were believed to be near extinction. They are numerous again now, due to strict measures. And in Europe the efforts of a society patterned after the American Bison Society seem to be successful in saving the European cousin of the bison, the wisent. There were only about fifty animals left at the end of the second World War. By now the number is more than a hundred.

These examples have proved that even a late action can be quite successful. The societies which are now concerned with the survival of the Whooping Crane and the California Condor can take heart. But for a few

other species the day of extinction is near.

Zoologists have drawn up a list of about fifteen species which are very much endangered by two facts: the number of specimens is very small, and their geographical range is also very small. Their extinction could be the result of a single large forest fire, an unusually severe winter or the inability to escape newly introduced predators.

This list has been referred to as "tomorrow's fossils". While it contains a few names where this term seems to be exaggerated—for example the wisent, which is under the firm protection of its own watchdog society—it also contains two names of species which may no longer exist. If survivors of these species are still in existence somewhere they are the rarest animals on earth.

Their scientific names are *Thylacinus cynocephalus* and *Solenodon cubanus*, inhabitants, or former inhabitants, of Tasmania and of Cuba respectively.

Thylacinus was named by the English zoologist Harris who displayed a fine knowledge of classical Greek in the process. The generic name *Thylacinus* was derived from the word *thylax* meaning "pouch" and *kinēter* which means "disturber"; while the specific name *cynocephalus*

comes from *kyon* ("dog") and *kephale* ("head"). The English version of the scientific name would therefore be: the dog-headed pouched disturber (of livestock). The actual English name is Tasmanian Wolf because of the wolf-like head, or sometimes Tasmanian Tiger, because of the tiger-striped hindquarters. In size a fully grown male could compete with a police dog. The females were much smaller. The Tasmanian Wolf, therefore, was the largest meat-eating marsupial.

As long as the number of settlers was small and the number of "wolves" was large it was very decidedly a nuisance. It is not surprising that the settlers shot them whenever they saw one. But while wolf-like in appearance, the habits of *Thylacinus* were quite different. It seems to have hunted alone and was not particularly swift. Instead of overtaking its prey the Tasmanian Wolf wore it out by relentless pursuit. Then, when the prey finally collapsed, *Thylacinus* just ate as much as it wanted, leaving the remains to the other predatory marsupial of Tasmania, the smaller Tasmanian Devil. One zoologist, about eighty years ago, claimed that small groups of Tasmanian Devils trailed a hunting Tasmanian Wolf, knowing from experience that a free

meal would be forthcoming sooner or later. The Tasmanian Devil is now rare, too, but does seem to be on the verge of extinction. It may be saved because it makes a friendly pet when captured young enough to be trained.

The last thirty years of the history of the Tasmanian Wolf consist mainly of rumors. It is definite that a settler shot one in 1930. At that time another specimen was alive in the zoological park at Hobart, Tasmania's largest city. When the zoo specimen died in 1935 the officials issued a call for a replacement, apparently confident that they would get one soon. They never did. But in 1938 one was shot and photographed at Mawbanna on Tasmania's northwest coast. In 1957, a pilot, flying a helicopter along the island's west coast, saw a striped animal from the air which could have been a Tasmanian Wolf. But a search on the ground which was started

almost immediately did not find it.

The latest case dates from the year 1961. A fisherman night-fishing for bait at Sandy Cape (also in the northwest of the island) ran into an animal in the dark, and in the ensuing fight bashed its skull in. In the morning he realized that he had probably killed a "tiger", as he called it. He must have done some soul-searching in the light of the early morning. He knew of a fine of a £100 for killing a *Thylacinus*; on the other hand he knew that any reliable report on this animal was of scientific value. So he took hair and blood samples and sent them to the university where they were tentatively identified as having come from a "tiger". Presumably the samples were too small to make the identification positive.

And that's the story now.

Nobody can say that the Tasmanian Wolf is extinct, and no-



Fig. 2. The "Tasmanian Devil".



Fig. 3. The Cuban Solenodon
Probably exterminated by mongooses.

body can insist that it is still alive. If it is, it is one of the rarest animals on earth.

All this applies to the Cuban solenodon too, with the complication that it is much harder to get any information at all. But before I go into the short and flimsy story of the Cuban solenodon a little backtracking is necessary.

In 1833 the Russian Academy in St. Petersburg received a specimen of a new animal from Haiti. It looked somewhat like a shrew but was the size of a very large rat. It was turned over to the Curator of Mammals, a German named Brandt, who described it and who also had to invent a scientific name. Since it was generally a puzzling animal he called it *Solenodon paradoxus*. (*Solenodon* means "grooved teeth".) Naturally American scientists were interested, but inquiries made near the latter part

of the nineteenth century brought the reply that no such animal was known. If there had been one like it, it was extinct.

One of the men who received such a reply was Prof. Addison Emery Verrill of Yale University; and his son, Alpheus Hyatt Verrill, who explored the West Indies early in this century, succeeded in re-discovering *Solenodon paradoxus* in Santo Domingo in 1907. He obtained a female which, on the day after capture, gave birth to three naked young and died immediately afterward. The animal must have been very rare. It is now extinct.

The Cuban solenodon was discovered in 1861 when a German traveler by the name of Gundlach shot one and sent it to the Natural History Museum in Berlin for identification. It was found to be a close relative of the species described by Brandt and though it lived on Hispaniola as well as on Cuba the scientific name became *Solenodon cubanus*.

In shape it looked very much like a shrew. Its color was a typical camouflage color of the forest floor, a yellowish brown which was overlaid on the back by fairly long blackish guide hairs. The tail was naked. The overall length was about 20 inches with the tail accounting for about 7 inches of the total length.

Several zoologists went to Cuba for the main purpose of studying solenodon. They found that it was nocturnal and fond of going into shallow water. It would eat anything, provided it was meat; when hunting on its own it ate beetles, grubs and worms but was quite willing to kill young chickens, which it tore apart with the long claws of its front feet. It had two cries. One of them was likened to the grunting of a piglet, while the other was shrill, like that of a carnivorous bird. Every once in a while—reasons unknown—it would secrete an oily reddish liquid with an unpleasant smell.

By about 1910 zoologists knew that the nearest living relatives of the two solenodons were the Giant Water Shrew (*Potamogale velox*) of Africa and the hedgehog-like Tenrec of Madagascar. This was not as surprising as it may look at first glance. Solenodon and its relatives belonged to a group of ancient mammals which go under the general designation of insectivores. The name is misleading in that they do not live on insects only; the African *Potamogale* is on a diet of fish and freshwater crabs, as are some of the smaller shrews that also are classed with the insectivores. In any event this is an ancient group of world-

wide distribution. It is therefore not too much out of the ordinary that fairly close relatives should exist in widely separated parts of the globe.

Since almost all of the insectivores are of nocturnal habits and most of them are small they are overlooked by the average person, even one living in the country.

Even though the Cuban solenodon might have stolen a young chicken here and there it had never been actively pursued by the Cuban peasants. They had a much bigger worry. Rats had come ashore from ships and had multiplied prodigiously. Getting rid of rats, was, for a time, the main problem. Officials of the various island republics asked for expert advice: was there an animal which liked to hunt and to kill rats, preferably an animal that did not bother people? The experts said that there was just such an animal which also likes to hunt snakes, the Burmese mongoose. Beginning around 1870 mongooses were imported to Jamaica, to Cuba, to Hispaniola and everywhere else where rats caused damage.

At first it looked like a huge success. Within three years the loss because of rat-spoiled sugar cane was halved on Jamaica. Cuba had similar results. Everybody was pleased that the mon-

gooses liked the climate and multiplied rapidly. But every mongoose wanted to eat and the rats had become comparatively rare by the time the mongooses were numerous. So they attacked and ate snakes, and lizards and other wildlife—including solenodon.

Officials of the U. S. Wildlife Commission watched, and saw to it that a law was passed prohibiting the import of live mongooses into the U.S.A. The South American countries followed suit and the Central American countries did the same. Even the various island governments passed such laws—a futile gesture because they already had the “beneficial” mongoose on their islands in large numbers.

The mongoose is the reason why *Solenodon cubanus* is likely to be extinct by now.

If I fail to sound positive one way or another it is by no means accidental, for amazing re-discoveries have taken place. In spite of the fact that more than fifty species have become extinct during the last one and a half centuries, zoological literature is full of notes and reports saying that such and such an animal, believed extinct, has been found again.

When I was a boy of about ten, there was a glass-covered case in the Natural History Mu-

seum in Berlin, showing a display of a number of fairly large pale-colored and beautiful butterflies. A black-bordered card stated that this butterfly—its name is *Apollo*—was unfortunately extinct. When I was about twenty-five, the display case was still there but the card had been removed; in the meantime *Apollo* had been found alive and in large numbers in an area only about 100 miles to the east of the area in which it had been exterminated by a series of severe winters.

In Australia they had a card marked with a skull—meaning extinct—in the Melbourne museum on a case displaying Leadbeater's Opossum (*Gymnobelideus leadbeateri*) with the additional information that only five specimens of it had ever been found. In 1961 the card had to be re-written, for a specimen of Leadbeater's Opossum, quite alive and in good health, was caught in the mountains only 70 miles from Melbourne.

In New Zealand they were even sadder about an extinct large and flightless brightly colored bird which went under the native name of Takahe as well as under the scientific name of *Notornis*. Once it had ranged over both islands, and after it had become extinct on the North Island it had been captured re-

peatedly on the South Island, the last one in August 1898. Only four specimens had been captured. The skins of three of them were in museums in Europe; New Zealand held on to the last one. Of course the cards on the cases were either black-bordered or bore skulls, depending on local scientific custom. By 1945 it was evident that the Takahe was extinct, since repeated searches had failed to find one. But in 1948 a live Takahe was seen by an expedition looking for it because of footprints that had been found. One of the members of the expedition threw a net—capturing two Takahe. It is now known that there are two colonies of the birds in two adjacent areas to the west of Lake Te Anau.

Of course the Takahe is a very rare bird, just as Lead-beater's Opossum is a rare marsupial. But they are not extinct.

The story of the Cahow bird of Bermuda is quite similar. It was thought to be extinct and occasional reports were put down as confusions with a similar looking bird that goes under the name of Audubon's Lesser Shearwater. Most of the reports probably were confusions, but some may have been correct, because in January 1951 (after a dead bird which had killed itself flying into a lighthouse had been



Fig. 4. Steller's Sea Cow
Only three drawings of the animal exist, of which this one is the best. It was originally drawn by Sven Plenisner, a member of Bering's expedition.

identified as a Cahow) it was discovered alive. Again: it is very rare, but it isn't extinct.

And there is now good reason to believe that we have one more case of an animal believed to be extinct but actually still existing in very small numbers. The case has been reported in the August 1963 issue of the Russian journal *Priroda* ("Nature"), the official journal of the Academy of Science of the USSR. In July 1962 the captain and the crew of the Russian whaling ship *Buran* saw a group of large marine mammals in shallow water off Cape Navarin to the northeast of Kamtchatka. The bottom of this area is covered by a dense growth of all kinds of marine plants. The six animals were not whales and they were not seals. Their length was between 20 and 24 feet, the skin was dark in color and they had a pendulous upper lip hanging across the front end of the lower jaw. Every once in a while

they dived, possibly browsing on the vegetation.

Considering the place where these marine mammals were seen and the description of their appearance they could only be surviving specimens of Steller's Sea Cow, known to zoologists as *Rhytina stelleri*. The animal was originally discovered during the winter from 1741 to 1742 when the survivors of Vitus Bering's expedition to Alaska were shipwrecked on the island where Bering died and which bears his name. The naturalist of the expedition, Georg Wilhelm Steller, recognized it as an enormously large relative of the manatee and the dugong. They were up to 25 feet in length and lived in the shallow water around the island, forming distinctive small herds. Steller said that they were numerous around the island all year round, but that he had never seen one before anywhere else.

About 1880 A. E. Nordenskiöld collected all the material about the animal that could be found in Russian archives. In 1754 the vessel of one Ivan Krassilnikov was provisioned with the flesh and hides of the arctic sea cow,

and in 1762 somebody named Korovin did the same. But in 1772 Dimitri Bragin, who had been instructed to keep a journal on animal life in these waters, failed to see one. Other negative reports followed. Therefore Brandt in St. Petersburg (the one who named solenodon) concluded that the animal had been exterminated around 1768.

This was a mistake. Reports on sea cow hunts made in 1779 and 1780 were found later, and the Russian archives contained a statement about a sighting of a sea cow during the year 1854. Nordenskiöld, after reading all the reports, decided that the arctic sea cow had not been exterminated in 1768, but driven away from the island. But he concluded that they then became extinct anyway because their new habitat did not offer them favorable conditions.

After the report from the *Buran* it seems that Norden-skiöld was both right and wrong. They were not exterminated at Bering Island, but dispersed. However, they found new habitats which permitted them to survive.

—WILLY LEY

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THE MONSTER AND THE MAIDEN

BY ROGER
ZELAZNY

*She was doomed as a sacrifice
to the god her people feared.*



A great unrest was among the people, for the time of decision was again at hand. The Elders voted upon the candidates and the sacrifice was affirmed over the objections of Ryllik, the oldest.

"It is wrong to capitulate thus," he argued.

But they did not answer him, and the young virgin was taken to the grotto of smokes and fed the leaves of drowsiness.

Ryllik watched with disapproval.

"It should not be so," he stated. "It is wrong."

"It has always been so," said the others, "in the spring of the year, and in the fall. It has always been so." And they cast worried glances down the trail to where the sun was pouring morning upon the world.

The god was already traveling through the great-leafed forest.

"Let us go now," they said.

"Did you ever think of staying? Of watching to see what the monster god does?" asked Ryllik bitterly.

"Enough of your blasphemies! Come along!"

Ryllik followed them.

"We grow fewer every year," he said. "One day we shall no longer have any sacrifices left to offer."

"Then that day we die," said the others.

"So why prolong it?" he asked. "Let us fight them—now, before we are no more!"

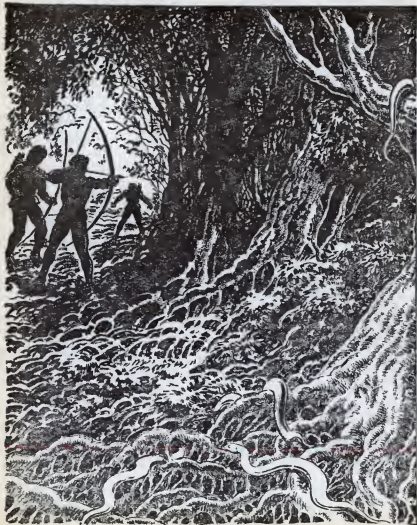
But the others shook their heads, a summary of that resignation Ryllik had watched grow as the centuries passed. They all respected Ryllik's age, but they did not approve of his thoughts. They cast one last look back, just as the sun caught the clanking god upon his guilt-caparisoned mount, his death-lance slung at his side. Within the place where the smokes were born the maiden thrashed her tail from side to side, rolling wild eyes beneath her youthful browplates. She sensed the divine presence and began to bellow.

They turned away and lumbered across the plains.

As they neared the forest Ryllik paused and raised a scaly forelimb, groping after a thought. Finally, he spoke:

"I seem to have memory," said he, "of a time when things were different." END

A MAN OF THE



RENAISSANCE by WYMAN GUIN



Now that the revolution was a success the little Chacon and I were staying at the Stone Inn. As you might suspect from the name, there is not a piece of rock in the whole building. Nevertheless, it is the

best address on my home island.

I sat at a window of my parlor and watched the street-lamps gutter in oily smoke. The first gray of dawn pearly the mists between the lights. With day approaching, you could hear an occasional patter of feet on the worn, plank streets.

The voices of our guards came more frequently from far and near.

"Halt, for inspection!"

I felt a sigh heave my chest. The rebel leader and I had not commanded our forces very brilliantly. There had been much more killing than I had anticipated. The defenders of the false king, together with our own dead, had been piled in the streets, and in the courtyard of the Tower, and up all the stairs of the Tower. Every burial pool on the island had been crowded with mourners for two days now.

From where I sat listening to the first stirring of the frightened city, I could see the dim lights in the shabby Tower of my home island. Our kings have never lived higher than six levels above the sea. Even the poor little island of Torne has a higher Tower.

Tonight, all of the rooms of our Tower were lighted as a protection for the young prince whom we had taken from his prison and placed in the tower the night before last. We had him under the protection of the first overlord and those soldiers from the old army who had joined the revolution. The first overlord was now preparing the Tower for the ceremony at noon, today, in which the

prince would be made king. Until that ceremony there was danger everywhere.

The people were happy about the death of the false king and about the placing of the young prince in the Tower. It was my own plans they were against. They wanted no part of my scheme to bind two other small, floating islands to our island and create one large, rich island. I had not lived on my home island since childhood and I was, to my rude people, a fancy foreigner with educated ideas.

Across the gray fog, appeared the first ochre streams of day. Sha'tule, our yellow sun, would rise shortly. About an hour later his bluish twin, Sha'charn, would come up. Then the fog would melt.

There was a gentle knock at the door between our apartments and the little Chacone entered. She was dressed in mourning for the "rebel dead."

Her black sheath did little to obscure her figure, and it set off her beautiful face dramatically. She was wearing a royal funeral tiara of the black diamonds that are mined by divers in the shallow Sea of Mourning. This was her right, since the beautiful women of Chacone are made true queens before they leave

the island. From wherever in the world their masters may live, they participate by messenger in the highest affairs of Chacone. After all, the whole island is supported by these rare women.

"She hesitated at the door to make sure she was not intruding. "I heard you moving about over an hour ago."

"I am just waiting for noon. Nothing is safe until noon."

Up the street I thought I glimpsed a furtive scuffle.

She was approaching me and I raised a hand. "Did you hear a cry?"

She stopped, but she did not glance out into the fog. "I heard nothing."

"I thought I heard a cry."

Now she came directly to me. She took my hands and raised them until I followed with my body to stand over her.

She said, "Darling, you are depressed about the killing. You have killed because you had to. Now, in a few hours, your people will have a good king."

"I killed because I want to bind three poor little islands into one rich, big island."

I spoke with conscious melodrama. "The men who died will never share that wealth. The men who live do not want it."

I kissed her and went on. "To

put things clearly, the so-called 'false' king is 'false' only because he is dead. He got that way because he refused to sign the treaty I want with the islands of Torne and Parsos.

"He was a better administrator than this prince will be. Don't forget, I taught this prince while he attended the University of Hahn. I can tell you, he is something of a lout. But he will sign the treaty as I wish it, and so, he is a 'true' king, in my estimation."

She put her golden arms about my shoulders and kissed my mouth. Since she had been trained from childhood in every nuance of love, and since she loved me deeply, it was a kind of kiss that would have made a common man throw sticks at his bride.

Her lips broke with a little laugh and she drew back. "Darling, I must be seen in my funeral finery. Won't you take me down to the dining room?"

Without offense she had interjected a little light-heartedness. Since arriving on my island a few weeks ago we had a joke about her.

In their natural habitat — the great cities on the rich islands of the world — the Chacone women display no vanity. For thousands of years the Chaconese have lived in ritual polyan-

dry, breeding and perfecting these beautiful creatures for export. These women are so accomplished in manners and so talented in the arts that it usually does not occur to an ordinary woman to envy them. Still, there are always a few who do, and on many islands the native word for female vanity has been replaced by a phrase that means, "trying to act like a Chacone".

While we had lived on the rich island of Hahn, she had been simply, the most beautiful Chacone anyone had even seen. Here on this naive little island where none of the last three kings had been able to afford a Chacone, she was the most beautiful *human* anyone had ever seen. The adulation had shocked her at first. Then she had begun to revel in it because, once my people accept a stranger, it is all the way to the heart.

So we had this joke—that she was a Chacone trying to act like a vain wife. With her little parody, she had made me face the fact that my "guilt" about the killing was as unnecessary as her "vanity".

For the first time since we had got the prince into the first overlord's protection and the fighting had ceased, I began to get a grip on my depression.

"My marvelous little Chacone!" I took her sweet face in my hands and kissed her again.

I debated about arming myself to go down to breakfast. Then I put on the Great Blade of Hahn and tucked my steel knife into my sash.

As I reached to open the door to the hallway, to let the Chacone pass through, there was a knock on it. I pressed her back and drew the knife and opened the door a crack. It was the big rebel leader.

We grasped forearms affectionately, and he bowed with respect to the Chacone.

As we went down the hall toward the stairs he fell into step beside me.

"There are things I do not like."

"For example?"

"The Tower is locked."

"The Tower is always locked on the day a king is made."

"Nevertheless, there are things I do not like. I am going to have a close look at everything."

Downstairs he bowed again to the Chacone. To me he said, "I will be back before Sha'cham rises."

He had succeeded in stirring some unease in me. When the Chacone and I entered the dining room, I let the attendant take my cloak and feathered

hat, but I kept my Great Blade and my knife.

We were no more than seated at our table when I caught a flash of evidence that I was right to be alert. A man at a table against the wall made a mistake.

He was having flashed gull eggs for breakfast. Instead of driving his sipping tube through the shell of the egg he was holding, he punched a delicate hole in it with his thumb nail.

He froze, and I swept my eyes to the face of the Chacone before he could inspect the dining room. The islands held by sea bandits have never adopted the sipping tube which is proper everywhere else.

I smiled at the Chacone and then made a disinterested survey of the room. He was looking directly at me. He had picked me as the only guest who might have noticed that a spy from the sea bandits had just broken an egg.

On any island where there is political strife, and even on islands where these clever men can smell it coming, there are spies for the sea bandits. When these spies report that an island is sufficiently divided and weakened, the bandits come in for brief, bloody raids.

I decided that as long as this man was worried about the

manner in which he ate his eggs, we were safe from such a raid. Now that we knew him, he could be watched and it would be time enough to worry if he disappeared.

"Waiter."

He came around the table from where he had been watching the boys put saucers of fruit before us and fill our glasses with spiced rainwater.

"Yes, Master?"

"What is that shouting out in the street?"

"Both of the local printers have sheets out this morning that tell of the revolution. Shall I send one of the children?"

"Please do."

He beckoned an urchin of less than six years from the corner of the room and sent him for the papers.

"Is that all before I serve your first course. Master?"

"No. Look me in the eye."

This waiter had been very loyal to the revolution. He stood still and looked me in the eye.

"The man against that wall is a spy for the bandits."

"Ahhhhh! Really?"

He was staring hard into my eyes trying to remember the guests in the direction I had glanced.

"Ahhhhh! In the white blouse with lace?"

I had only to nod once.

"Really! I would never have guessed."

"Have him watched constantly."

"Of course."

"And waiter."

"Yes, Master?"

"Sha'tule is up. Many of the guests here, who are trying to stare at my lady are looking directly into the panes of this window. Why don't we draw the curtain for their benefit."

A smile passed his lips. "How gracious of you, Master."

She gasped, "Oh!", and with a little laugh, she popped a berry into her mouth.

Just before the waiter drew the curtains, I saw dark shadows of soldiers race along the translucent panes on some emergency.

I grinned at her. "I must say, you are being seen."

She dropped her delighted eyes in embarrassment. "Darling, please! It was only a silly joke."

The child returned with both papers. I looked into the pale, pinched face that you see so often in these children of my home island, and I overtipped him lavishly.

He hardly understood what I had given him. Instead of returning to his post in the corner of the room, he raced from

the inn for home and mother.

The Chacone was shaking her head. "You shouldn't do that, darling. He may be accused of stealing."

I shook my head in turn. "I don't know why I do it to the little beggers."

Neither of us mentioned that I had a son of that age whom I had never seen. She simply reached out and covered the back of my hand with hers and asked, "May I have a paper, dear?"

One of the printers was still using wooden type, but the other had acquired the metal type that is now molded on the island of Hahn. I gave her the one printed with metal.

We had been served hot bitter-berry tea, and we both sipped while we read. Abruptly, she started exclaiming in whispers.

"Darling, it tells all about you here. It says that you are not just a Master of The Seven Arts, but the most learned and talented man in the world. It says that your books and scrolls are treasured by seven kings and countless lords. It says that your paintings in oil and your sculptures and your designs for the great Towers of the world are..."

"Does it say anything about my flying machine?"

She glanced up and down the page. "No, I don't see anything about that."

"I didn't think you would. But if we had lost the revolution you would be reading a feature story about it."

"Did you have a flying machine?"

"No, I had a machine that didn't fly."

My paper, printed from the larger wooden type was quite thick and I began hunting with excited annoyance for some mention of my great plan to bind together my home isle and the islands of Torne and Parsos. I could find no mention of it.

"Oh, darling, it tells about *me!* Listen! 'For his work in developing the steel of the Great Blade of Hahn, the Master was given a beauteous Chacone by the king of Hahn. It is said that the king paid for her the highest price ever paid to the Chaconese.'

"Oh, darling, listen to this!

'Our whole citizenry has been grateful these past weeks for her gracious —'

"My dear. Calm yourself!"

"— 'for her gracious presence . . . her wit . . . her taste and artistry . . . her . . . !'"

She was becoming quite breathless. I couldn't help laughing. Her breathing stopped and she

turned to me with the glazed stare of a completely ravished woman. "What was funny, darling?"

"I'll tell you what let's do. Give me that paper, now. Then, after breakfast, we'll go upstairs and snuggle into bed and read to each other about ourselves. Won't that be fun?"

She handed me the paper obediently. "Don't be silly."

While she sat in her daze, automatically rebathing in adulation, I searched the metal print for any mention of my plan to bind together the three little islands.

There was nothing.

Slowly, I lowered the paper to the table. It was an ominous sign. They were dead against it. In the moment of our triumph they did not dare mention it. But when the time came they would try to swing the popular dislike of my plan to influence the new king against it.

I heard my teeth gritting together and I found that I was trembling with anticipatory rage. I had not led hundreds to their deaths, killing other hundreds only to let two smudge-fingered printers stand in my way.

I saw that the spy for the sea bandits was leaving. Then he hesitated, staring at the doorway.

The rebel leader was standing in the entrance. There was an air of urgency about him. The spy would have given anything if he had not already risen and headed for the entrance, but it was too late now, and he passed on out with only a glance at the rebel.

When the big man reached our table, I saw what the spy had seen. The blunt face was chalked with shock, the pupils dilated, the breathing shallow and fast.

I could feel the blood draining from my own face. My whole body was straining; first to swell into a giant of rage, then to shrivel to a beetle and scuttle for the wall.

He sat down, whispering hoarsely. "It is all lost. We have been tricked. The first overlord has locked the prince in the Tower dungeon. He commands the remnants of the old army against us. They have just taken the warehouse we were using as a garrison and killed over a hundred men."

I started to rise.

He grabbed my arm and pulled me down. "Listen to me. We are safe as long as we don't leave the hotel. Even if I'm captured I do not think the first overlord will have me killed. It

is you and your plan he wants to stop. We must get you off the island."

He continued with heavy breathing. "Now, listen. The bamboo forests are still in fog. I am preparing a guarded way for us through the alleys to the edge of the city. I am also preparing a fast ship for you and your lady. If we are cut off from that, I am having a raft prepared for you."

I stared at him. "Rebel, we are surrounded by desert seas right now. I can't take a raft into those deserts."

"Master, I believe you can do anything. I only say that you cannot always do everything at once. If we are reduced to the raft, your lady will have to remain."

The little Chaconé was clutching and unclutching my hand in hers. I became aware that the dining room had become electrified with terror and was emptying. We three had become a focal point where the sudden threat of death hummed in the ears of those present like a stricken wasp.

The waiter hurried up to us. "Master, I have heard about the treachery. But listen, there is more. The spy for the bandits has disappeared. In days, the sea about here will be swarming with them. If you were thinking

of escaping with your lady ... I beg you, don't."

She was shaking her head piteously with tears glistening on her cheeks. "Please don't leave me. I do not fear any of these things. Please take me with you."

The rebel and I were staring at each other across the horrible thought of capture by sea bandits. I turned dazedly to the Chacone and shook my head.

She buried her face and wept.

The waiter declared, "Master, no harm will come to her. We will take good care of her." Then he excused himself and hurried away.

The rebel rose. "I will make one last check of the escape route while you say farewell to your lady." He left the dining room by way of the kitchens.

I stood up, and drew the Chacone up to me. Her lips moved warmly and her tears were hot on my face. Undoubtedly, for the last time, I was holding the world's most fabulous prize in my arms. Yet death, buzzing insistently in my ears reminded me that I had been condemned, long ago, to love another.

The woman I loved was beautiful, but not this beautiful; talented, but not this talented; royal, but not his regal. She was the mother of my son, and

perhaps I was condemned to love her simply because I could not have her.

I kissed the dear little Chacone over and over and promised her that I would return. Then I found that I was promising to return with soldiers and retake the Tower.

So there it was in the open ... the killing had not yet been enough. It had only been in vain. Whether or not the sea bandits came I would come again, to kill again for my plan to bind together the three islands.

The rebel and I had no difficulty reaching the edge of the city. We were beckoned from point to point by our waiting comrades. Trouble began immediately when we entered the forests of bamboo.

A rebel came racing toward us from ochre banners of fog. "They have captured the boat and the three men guarding it. Take this side path to the raft. Hurry, they are right behind me."

He gestured wildly and fell at our feet with a javelin in his back. We raced into the forest where the light of Sha'tule beat at the fog with a golden hammer.

Shrieks and moans from a thousand lost souls burst from

the path ahead of us. I stopped dead in the path and the big rebel crashed into me.

We both simultaneously recognized the din as the pipes and strings of funeral music. The scale in which my people play their harsh instruments is fortunately unknown on other islands.

The rebel leader was pressing me forward. "Move in and mingle with the mourners. They will be hurrying the funeral to avoid the Sun Gods. They will not notice."

Masked by the racket and concentration of the ceremony, we went in among the mourners who encircled the pool. Smoking torches still fluttered along the edge of the golden bowl of light above the pool . . . light that was now fretted with the blue of Sha'charn. A red-shrouded corpse was poised over the water on his bamboo slide. The bural stone to which his feet were bound was a rich one, fully a hand thick, and as big around as a man could encircle with his arms.

The wailing of the instruments ceased, and now the big rebel, his rock-like face unmoved, worked to still his deep breathing.

On all sides, presently, I could hear the soldiers moving quietly. They inspected the mourners

from a pious distance and they passed right by us.

The Shaman mounted his stand at the head of the reclining corpse. After a long time in which little accidental sounds ceased, he started reading from his sacred scroll.

"All things that live on land all the animals of the islands and the cities of men on the islands, float at the surface of the sea where there is storm and sinking and terror."

Suddenly the widow, who stood with her friends beside the Shaman's place, lifted her arms to the thinning fog and shrieked a curse. With a bound of my heart, I recognized that it was me at whom she hurled this hatred. The rebel turned to me, and he could not help grinning.

There was a little commotion near the widow and the rudely grinning rebel used the moment to whisper, "Master, they are praising you."

Now it made my throat ache to see this corpse. He had been Captain of the Guard at the Tower, and last to stand before the door to the apartments of the false king. I had to run the brave man through.

The Shaman went on with his reading. "On the currents of the worldwide sea, our islands drift to the north and they drift to

the south. They bring us to the depredations of the Ice Islanders. Our islands drift into the boiling waters of steam and pumicine and into the chill waters of ice and snow.

"All these terrors are controlled by the evil eyes of the stars which control all things at the surface of the sea."

This belief is the reason funerals are held at dawn or sunset. They want the dead to go to the sea floor without being seen by the evil stars or wrathful Sun Gods.

The Shaman continued. "But the eyes of the stars do not reach to the Floor of the Sea. Down there, where decay cannot occur, far from the storm and terror of living, there go all the dead..."

Behind me a soldier coughed nervously, and from the other side of the pool, another also coughed. The rebel smiled sympathetically.

The Shaman had reached that part of sacred belief that is most distressing to a man of action, and presently I could hear the soldiers begin moving away. In the thinking of the pious, the Floor of the Sea is a great, calm plain on which, in static promenade, the buried dead stand about in the blue shrouds of women and the red shrouds of men, their feet bound to their burial stones, contemplating for

the eternity the asqueous silence.

Unable to bear such a prospect, the sailor has invented the lascivious Sea Women, and the soldier has named our twin suns Sha'tule and Shal'cham . . . "commander of the dead that arise as mists," and "commander of the dead that arise as storms".

The drums about the burial pool began to murmur and the slide bearing the corpse was slowly tilted. I thought the brave captain would never let go of his slide. Then, as the drums reached a deafening roar, it was as though he remembered some gleeful prospect, so abruptly did he shoot into the black water.

My throat ached, but I found there were no words to say to him.

To make sure we would lose the soldiers, the rebel and I returned toward the city for a way with the mourners. We left them where a narrow path headed back toward the island's edge. We raced down this still protected from any distant view by the thinning fog. The ground grew softer and now, only a few feet beneath us, was the sucking of the sea.

The rebel motioned to me and stopped. He studied things through the fog a bit and then whispered. "They are guarding the paths ahead. If we don't slip

through them, run for the amphibial."

I whispered back. "Listen, if we are separated, tell our people I have gone to Thule for soldiers."

He stared at me in disbelief. "I thought the king of Thule had condemned you to the plank?"

"He will have forgiven me."

He continued to stare at me and shook his head. "Master, you have lost your mind to go back there."

Behind me a man shouted very loudly, "Aaaaceee, here!"

III

He was hurling a bone-pointed javelin and it was sad for him that he missed my face. I drew the gleaming Blade of Hahn, the blade a stride long, a length unheard of in most of the world. I took two steps and ran him through.

The rebel was calling to me, "This way."

Soldiers rose out of the shallow ground, eager and yelling. I heard all about us as we ran, that dry whisper of death—arrows clipping through the bashai leaves. We plunged into the rank growth of the amphibial where the thin ground waved under foot, where the thicket crawled with deadly snakes and toads.

While an island drifts through tropic waters it is bordered with this pumicine pack and its wildly growing plant life. No man would willingly venture there and the soldiers did not follow. They stood on the higher ground and waited.

When we started to move we waved the head-high, pulpy bush. A shower of arrows snickered through the leaves. There was laughter from the shore. They had themselves a real sport. If they didn't hit us, the snakes would.

I went ahead of the rebel with my Great Blade and in thirty stops I cut six filthy snakes. The soldiers showered arrows increasingly wide of us as the stir we caused drew out of their sight. Finally, we were free of the soldiers and there was only the great, hot hush of the amphibial about us.

The island had not passed through a storm in many months and so the amphibial was unusually solid. Even so, we stepped through the treacherously waving earth frequently, and once the rebel went clear through till I grabbed the bushy hair of his head.

Sha'tule, and Sha'charm were high now and boiled down into the thicket. Clouds of insects made our progress torment.

What a curse it is that this

great military barrier around every island fails us when we need it most. As our islands drift north or south toward the Ice Islanders, the encircling amphibial shrivels. Creeping roots that have collected these great pumicine packs and rotting leaves in the long tropic heat now freeze. The snakes and poisonous toads retreat to the more solid land and burrow. The chill waves smash away all but a little rim of the once forbidding amphibial and when the Ice Islanders come in their fearsome, horned boats we must defend every pace of the frozen shore.

The rebel leader, an older man than I, floundered more and more frequently. One man cannot carry another, or any great burden, without breaking through such thin ground. We were desperate by the time we came upon a small boating channel.

The fishers maintain these channels with walls and bottom woven of bamboo. As an island heads for the tropics and an amphibial grows about it, the fishers add these cradles of bamboo making a channel to the sea for their craft.

We crawled onto the overhead cross members separating the bamboo walls of this chan-

nel. We lay in the hot sunlight unable to care what might happen.

At last I asked him, "Is the raft in this channel?"

He nodded without speaking to me.

It was mid-morning before we let ourselves down into the sea water and swam silently back to the land.

Two soldiers with bone-pointed javelins stood on the floating wharf watching the shore and whispering to each other. A raft had been upended on the wharf for repairs and the two stood with this between themselves and the shore. Not once as we approached did they worry about the surrounding amphibial.

I drew the rebel to me and whispered to him while our toes rested on the bamboo cross members at the bottom of the channel. With our heads barely above water we moved cautiously ahead.

When we reached the end of the wharf they were about ten paces away. I nodded to the rebel and he sank from sight.

I counted methodically to 20. I drew my steel knife and threw it, a flash of light, between the ribs of the man on the left. His companion turned in astonishment. I grimaced and hissed a curse. He raised his javelin as,

behind him, the rebel mounted the wharf.

I ducked and the javelin boiled into the water over my shoulders. I raised my head to see him kneeling with coy surprise before he rolled into the water. I mounted the wharf and retrieved my knife. We hurried to a fishing raft that was somewhat larger and more substantial than the others.

The rebel loosened the moorings. "You will have to do with what provisions are here," he whispered.

I turned to him in stunned disbelief. "Isn't it stocked? Are you trying to kill me? I have to cross a desert sea."

"Something has gone wrong. This isn't the raft we had prepared."

I opened the floor box of the raft and glimpsed gaffing rods and a coil of rope. I cast about the wharf frantically until I saw one of those huge baskets which fishermen sometimes tow behind them filled with live fish. I brought this and threw it onto the deck while the rebel was shoving past the end of the floating wharf. I leaped two paces to the deck and he handed me a paddle.

"I will help you paddle out to sea. If soldiers appear before we are out of sight I can duck

back into the amphibial until dark."

Standing on opposite sides of the raft we paddled it back out the channel to the bobbing beds of free pumicine. I moored to the last bamboo stays of the channel and we rested.

He was a big man with a determined face and a blunt way. "I am not sure you will return. Your cause is not our cause."

"My cause includes your cause. We both want the young prince made king. Once he is king I will be able to take my business to him."

"You are sure he will sign the treaties you want with the islands of Torne and Parsos?"

"I know him. After all, I was his teacher when he was a boy. I taught him the first two of the Seven Arts."

"You think the King of Torne and Parsos will sign?"

"They have already signed a proposal."

"What do *they* gain by this?"

I began to unroll the split bamboo sail. Since the wind was from the land the raft pulled at its mooring.

It made me angry to talk with him about this. Why could not the people of my homeland see that they would have no lasting prosperity until they federated with other freely floating islands?

The kings of Torne and Parosos were both convinced that my plan was feasible to bind together with great ropes these small islands so that eventually they would grow together in the tropic lushness. When next their lands drifted out of the north seas clean of amphibial, they planned to erect the great sails I had designed. They would try to maneuver their islands together and bind them. With three islands thus bound there would be so much less shore to defend and so many more to defend it the next time we drifted against the Ice Islanders. Such a man-joined island, ruled by these three peaceful Kings, would be as wealthy and powerful as the great rock latched islands of Thule and Hahn.

But the people of my homeland are stubborn and arrogant. The former king, who had obtained the Tower falsely, would never listen to me. So I had joined these rebels to place the young prince to whom I could talk in the Tower. One could not talk to these stubborn rebels about joining peaceful hands with a sister island. They were as independent as sea-going turtles.

This one shook his head profoundly. "You worry too much about the Ice Islanders. I

wouldn't sleep on the same island with a Tornian. They are root grubbers."

I had the sail fully hoisted and the raft jerked at its mooring. He did not take the hint, so I went back and squatted near the rope to untie it.

I turned and snapped, "You, rebel, have not been taken from your home as a boy by the Ice Islanders. You have not spent two years as their slave. You are a small-island man and you think like a small..."

Suddenly, I saw on the sea over his shoulder, what had happened to the raft that had been prepared for me. Four soldiers paddled it swiftly, silently toward us.

The rebel, as if answering my insult with an impudent gesture, thrust at me from his mouth the barbed head of an arrow.

I spun backward, drawing the Great Blade. I slashed the mooring, and the raft leaped into the pumicine beds. As a second arrow sang over the deck, I tore open the lid to the deck box and dived into this narrow confine, jabbing myself painfully on a gaffing hook. Two more arrows thudded into the deck and then no more. I peeked out and saw that the soldiers were struggling to mount their sail.



They would draw more water, and I was sure they could not overtake me. Nevertheless, I spent little ceremony in disposing of the dead rebel and assisting my flight by paddle. Soon they gave up the chase and headed back for the channel. I stopped paddling and let the sail bounce me over the pumicine.

Across our seas drift great reaches of this stone, some as large as a man's thumb tip, and most much smaller. If one cuts a piece of this stone on a lapidary's wheel he will find it filled with air spaces. If one digs anywhere on an island he will find, beneath the soil of rotted vegetation, a thick

ground of pumicine tightly matted in wiry roots. On an old rock-latched island such as Thule, this base may be ten times as deep as a man stands.

IV

It is the belief of the pious that the islands were born in antiquity by fabled Sea Goddesses who sometimes cohabited with the Sun Gods. Thus, it is said that the beautiful isle of Ohme, which never leaves its narrowly circling current in the tropics, was begat by Sha'tule, commander of the mist. It is said that the Sea Goddess, Tora, in gratitude for this delightful



gift, swore to retain the isle in her womb until it was the most beautiful in the world. She is said to have travelled for a thousand years to create Ohme, where the tiny red deer bound across emerald meadows and the balloon flowers loose themselves from their branches at night and copulate above the tree tops with little cries.

A man who notices what he sees instead of what he hears will not believe that Ohme, or any other island, was born in such a way.

In my lifetime our knowledge of the world has grown tremendously, and we are not so likely to believe that Sea God-

desses actually exist as we are to treasure them as myth.

I think this: the islands are being built each day. There are forces building them and forces tearing them apart. In many parts of the ocean, such as Chryo where stupendous rocks reach to the clouds, there are great boiling places out of which gouts of pumicine are coughed up from the water. In addition there are many places in the sea where cones of hot rock and fire rise high in the sky and two of these are near the rock-latched island of Hahn. From all these places comes stone filled with air-spaces.

Where beds of such pumicine

float in calm seas you find them strewn with plantlife, and if the time is long enough you can pick up clumps of floating stone tightly bound in wiry roots and already plastered on the underside with the bulbous red leaves of the bottom plant. Such a clump is a primitive little island which is being borne only figuratively in the womb of a Sea Goddess. For the bottom plants suck up water and strain it of salt and deliver fresh water to the planets above. These in their turn are spread in the sunlight, which plants must have, and somehow they exchange sunlight with the bottom plants that were always in the sea.

I think that shallow islands such as Chacone, where the soil is brackish and unfit for agriculture, will one day be deep islands like Thule. After a storm on any island, you find pumicine in the funeral pools which means it has been driven in under the island where it may be incorporated by the muscular bottom plants into a deeper ground.

At last I was free of the pumicine beds of my home isle. Now, about me, the green sea swelled like white-nippled breasts of the necrophilic seawomen. The raft slapped from

wave to wave with a busy illusion of progress. I stepped forward of the sail and watched the horizon where a blue line lay. I decided that I had about two hours before I would be leaving the green sea.

I lashed the basket in the water at the rear of the raft, and used one of the gaffing hooks to land my food before I reached the desert. I was able to bring in six large blue-stripes without harming them unduly and I dropped them into the basket. A seventh, I left on the deck for tonight's food.

I reached the endless blue of the desert. There would be no fishing here. The sparse plankton supported no life. Now my progress fretted me. The improbability of success began to depress me. The first overlord would probably assume the kingship tomorrow. Now was the time to overthrow him while the people were bitter that the young prince had not been placed.

Now was the time, and here I sat slapping from wave to wave. Worst of all had been the death of the rebel leader. Now the rebels would have to rise spontaneously when and if I reappeared.

Prospects were even gloomier ahead of me on Thule. I was going there to beg soldiers from a

man who had last looked upon me in fabulous rage and had cried out in anguish, "Give him one hundred lashes. Nail him to a plank and put him adrift at sea."

I had been saved from that punishment. I had escaped to Parsos where the king had given me refuge against every threat and bribe from Thule. But I could not go to Parsos or Torne for help in this venture. If their soldiers came storming into my home isle killing lords and overlords — even putting the young prince in the Tower would not sooth the feelings of my people. After such a day there would never be a treaty such as I wanted.

The only source of soldiers close enough this year to be feasible was the rock-latched island of Thule near which our present currents were carrying us. The source was a good one. I was simply the worst possible ambassador.

I had heard that the rage of the king toward me had cooled. Definitely he had not torn down the Great Tower of Thule though at first he had threatened to do so.

How could he have done that? Of all my works, the Great Tower for the king of Thule is the crowning achievement. The

huge platform on which it stands is built of hardwood raided from the Ice Islanders and is a hundred paces square. On the upper floors, I had directed a hundred lapidaries for two years to finish the mosaics of the outer walls. These are of ivory and pearl, wood and stone. They depict all the allegories of the Sea Dieties and the highest levels depict the epics of the ancestors of the king of Thule.

The wood panels on the inner walls I had painted magically in oil so that the human form and all the animals and fishes of the world are seen in delightful poses and so real that the eye is bewitched.

This Tower rises fourteen levels over its massive columns, gleaming high above the lesser Towers of lords of Thule. Truly, the king of Thule is raised above the sea. How could he have brought himself to destroy such a work? And every day that he lived in those halls he looked upon the message of my hand. Surely he would have softened toward me.

That night I ate the raw fish and drank its water. I lay on my back watching the stars. I was steady on course. The Shaman say the stars are "evil eyes" that create all disaster. A man who thinks does not credit such talk.

A man who sails, (and who ever heard of a sailor Shaman?) knows the stars as friends.

There are many wonderful thoughts in the world today, new ideas that thrill you. One, that is most exciting to me, is the theory of the aged professor of astronomy at the University of Parsos. This theory is that the stars are really suns like Shatule and Sha'charn and that they are so small only because they are far from us. I like to think that there may be other worlds on which those suns shine.

I have tried to think of other worlds, for example, one where the sea would be almost dried up, perhaps by a closer sun. On such a world parts of the bottom of the sea might be exposed. Plants might grow on the exposed sea floor just as they do on pumicine. Animals would walk on solid rock. The Ice Islanders have great piles of rock which rise out of the ice and into the clouds and on which the hardwood grows. I mean . . . the whole world would be like that, and the islands would not move. . . Tonight I tired of thinking of such different worlds and I wished that the little Chacone were with me.

When I awakened the suns lay hot on the horizon. I was

startled. Hurriedly I checked the sea about me, and as a good seaman should, I looked into the suns.

It is a good thing that I did. I recognized her at once. Practically all the ships sailed by sea bandits are built to a pattern. This ship came at me like a great, black bat skimming between the suns, and I had only moments to prepare. My heart fluttered wildly into my constricted throat.

I would die, but I would not be tortured.

I jerked open the deck box of the raft and brought out the gaffing polls. The advice of an old merchant seaman raced in my mind.

"I've boarded three of 'em and there's only one way to do it. They always approach you on their windward because that's high-boarding for them."

I wanted them to board me forward of my sail. Aft of the sail, I rammed the butts of the gaffing polls through the bamboo and braced them in the logs. Their vicious points were a formidable barrier to boarding there. I snatched the coil of rope out of the deck box and formed a noose as they bore down on me.

I counted nine men leaning over the rail and one at the rudder. Three of the men, hesitat-

ing before the ugly gaffing polls about me, leaped onto my forward deck.

I gave thanks to the rich ladies of Hahn. They are lavishly untrue to their husbands, and a student at that university is not worth his salt unless he can throw a noose to the second floor of a rich man's Tower. The bandit ship swept past, and I caught the rudder pommel neatly.

Desperation hoisted me to the railing, and one motion that drew and swung the Great Blade slashed the throat of the surprised helmsman.

The bandits came at me to take a live prize, but when I opened the chest of a man from arm to arm they changed plan. The great Blade of Hahn is still as rare in the world as a king's Tower and greatly feared by fighting men. These five bandits now saw what I carried and they hurled club and javelin to kill. A javelin laid bare one of my ribs and a club momentarily stunned me and I fell heavily to my knees.

The voice of the old merchant man came back commandingly. "Board at the rudder and fight your way to the rear hatch." I followed the voice in a gleaming frenzy of the Great Blade. They would flay me a little at a

time and salt my body if they took me.

I jumped down the stairs and slammed and bolted the door to the captain's cabin. Right behind me two of them hit it with terrifying fury. They would have it down in seconds, but if the old merchant man's advice held up they would be too late.

His voice lashed me to action. "Throw open the door to the forward compartment and jam it so you can see the forward hatch. Hurry back to the lee port in the captain's cabin and open it. Reach way up and you can cut loose the boom."

I watched through the door I had opened and when I saw light at the forward hatch I slashed the lashing of the boom with my knife. There was a sickening lurch through the ship and two men screamed. A leg that had started down the ladder in the forward hatch was whisked out again as if by the hand of a god. There followed two splashes in the sea.

The door to the captain's cabin was splintering, and I dashed forward. I went up the hatch-ladder, blade first, and chopped off one of two bare feet that suddenly appeared before me on the deck. His unbalanced blow with a club smashed into the hatch and enough of my

head to knock northern lights through my brain.

As I climbed groggily onto the deck I heard the two who had smashed open the captain's door yell disappointment and clamber back up the rear hatch for the deck.

The fellow who had lost a foot did not realize it. He was trying to come at me with a knife. His head flew off with one swing of the Great Blade, and the two who had come up out of the rear hatch witnessed this. When I approached them they backed off respectfully. One of them dropped a stone ax to the deck. Presently he turned and dove into the sea.

The other man held a bone javelin hesitantly. I gestured over the side of the ship. He shook his head. I took a step toward him and he hurled the javelin. I chopped it out of the air. I raised the point of the Great Blade and I started backing him. When he reached the rail he just leaned away from the point until he fell overboard.

Then I understood why he had not done as had his companion. He could not swim. I had to listen to his screams while I brought the sail down to retrim the ship.

The three men who had boarded my raft had made some pro-

gress. The man who had jumped overboard and one of the men who had been knocked overboard by the boom were swimming for the raft.

The raft was still a hundred paces away when I began rehoisting the sail and felt the trim little bandit slip tighten like an airborne bird. I set my course for Thule.

By the time the raft was out of sight I had got rid of the bodies and swabbed the deck clean. Then I sat down near the tiller and carefully cleaned and polished my Great Blade.

What a marvel this metal was! Recently the Hahnese have been working the gray iron that flows from a fiery cone near their rock latched island. Now I had learned to work it with charcoal to make blades such as these.

It had been for this the King of Hahn had given me the Chacon.

Unlike the killing in the revolution, I had no remorse over the killing of the sea bandits. They are descendants of the Ice Islanders. For centuries their ancestors dominated our oceans; their raiding and slaughtering almost wiped civilization off of most islands. Those dark centuries were ended only by the rise of the great navies of Thule and Hahn which have pushed

the bandits back to a few poor islands from which they operate.

I was thinking these things as I finished cleaning the blade and I remembered that I had seen some writing on the table in the captain's cabin.

It is a seeming paradox that the bandits so love slaughter and torture that the most brutal man of another island shudders at the thought of them — and yet they are said to be constant poets. The long sagas of their history are marvels of myth and they are said to leave a scene of slaughter with every man vying to compose the best verse about it.

This captain had indeed been composing in a labored hand when I was sighted. His cup of morning tea had crashed to the floor when I later cut the boom. But the piece of parchment and his writing brush were where he had left them.

"Up ecstatic towers we
raced.

With bone lance and flesh,
Their women we pierced,
Till thousands of doves.
Were cooing for death."

I reflected over the savage faces of the morning and decided that the man whose chest I had opened had been the captain. I tucked his lines under my sash.

V

As you approach Thule you understand that it takes a man two days to walk across this largest of all islands. It lies across the horizon like an endless, green cloud. The rocks to which it is latched do not rise out of the soil. But the gleaming Tower of the King of Thule, which is my design, can be seen from the sea.

Thule is the great stationary point of trade. All islands which are in currents that pass near her have cycles of industry and trade based on that fact. The approach near Thule is always festival time. When the currents bring an island into these waters, the stores of its products are traded for the exotic products from many islands. Even the Ice Islanders of the north sometimes appear in fearsome armadas to stand off Thule and conducted sullen trade.

I had not had Thule on the horizon more than a short time when the sails of a fighting ship came out in my direction. At this latitude there is little growth of amphibial and they keep a close watch on the sea. My ship, obviously a sea bandit, brought this fighter out under taut sail.

The fighter came about. The faces of the soldiers were many and they inspected every inch of

my deck. I lowered sail rapidly and waited.

From about fifty paces the captain called to me. "Who are you?"

I cupped my hands and called back, "I am a Master of the Seven Arts. I call on the King of Thule."

The captain ordered his sail down and we drifted together in silent waiting. The grim soldiers did not speak with each other. They watched my deck. The soldiers of Thule are the finest in the world and their discipline is a thing to behold. The ship captains are always Lords of Thule.

"I'm alone."

"How did you come by this ship?"

"I captured it."

"Alone?"

"If you retrace my course you will pick up five ugly sea bandits adrift on my raft. The other five I killed and I have brought their ship as a prize to the navy of Thule."

For the first time the soldiers looked at each other and there was laughter. I drew the Great Blade and flashed it between Sha' and Sha'. The laughter abruptly ceased. The Lords of Thule already carry such blades and these soldiers now believed me.

At five paces the captain or-

dered a line thrown to me, and I made it fast. I stepped to the deck of the fighter of Thule and prickles of fear were on my back. The captain studied my face, and he recognized me.

He exclaimed "Master!"

I saw the many implications of this meeting storm across his rugged face.

A soldier whispered, "I'll swear on the Sea Floor, it is the builder of the Tower."

All motion about me ceased and there was silence in which no man heard more loudly than I that anguished cry, *Give him one hundred lashes. Nail him to a plank, and put him adrift at sea.*

The captain could only stare at me. I had painted for one of the inner walls of his tower a scene that had since become famous. It depicts the legend of Namora. Startled from her bed of pearls, the chaste goddess fights off the advances of Ti, the sea serpent. With this painting I had at last achieved such depiction of the human body that all who saw it stood in awe. None of the paintings I had done on Parsos or Hahn equaled it. This captain had been proud of his association with me.

I saw on his face that the lords of Thule would be dismayed at my return. In their eyes I had not done such a wrong. In the

last great raid of the Ice Islanders my parents had been killed. All their servants, and I their son, had been taken as slaves. It was not, to the lords of Thule, a discredit to me that subsequently a false king had assumed the Tower of my home isle and had dissolved the lordship of my father.

If then, I was a lord by desert, it was no great crime to have loved the youngest of the six daughters of their king. Unpolitic behavior, no doubt. But to be nailed to a plank! The thought is abhorrent even beyond its reality because of the belief that such cursed planks drift into the desert seas and remain afloat.

The Lord Captain who now stared into my face knew that my sentence was irrational. If the king had had a son, if one of his older daughters had had a son, I would today be married into the king's family. For in that circumstance a son of pure Thulian blood would not have been required of the youngest princess, to be later, King of Thule. In that circumstance my impropriety would have led, not to her ineligibility for royal marriage, but to our early marriage.

The captain took me aside. "Master, why have you brought this trial to me? I must take you

to your death. Don't you wish to stand on the Sea Floor? Must you decay here at the surface?"

"You think he cannot forgive me?"

"He will go through with it because he commanded it. What in the name of Sha'cham has brought you here?"

"A false pretender holds the Tower of my home isle. I have come for soldiers to retake it."

"Why didn't you go to Parsos which is drifting close to you now?"

The sails of the fighter had been rehoisted and the light breeze heeled us away from the bandit ship which was returned with soldiers to pick up the raft-load of its former crewmen.

I explained to the captain why I could not use soldiers from Parsos.

The people of my homeland have an outlandish reputation for unpredictable and romantic action. The Lords of Thule and Hahn, the great powers that forced back the Ice Islanders, sometimes look down their noses at our violent political history. They call us "teri che" which is to say, "wild ones".

This captain now hurt my heart, as if he had slapped my face. He shook his head with a grim smile and said, "Teri che." Then, staring into my face uncomprehendingly, he went on,

"You will not live to retake your Tower, let alone to carry out a scheme for binding islands together. You are going to be a dead patriot."

Then, without meaning to, he hurt me even deeper. "Thule owes you better than a plank. I promise that after your death, I will raise an invasion and straighten out your politics at home. I will place your *great* prince in his Tower."

With his contemptuous tone about our prince, which we agreed on, he expressed his evaluation of my plan to bind the islands, which he understood no better than my own people.

Neither by the rude nor by the sophisticated was my plan understood.

VI

Later, when we marched along a country road toward the city, with soldiers ahead and to the rear of us, I found there was one thing that rude people everywhere understood of me.

The news of my capture had run ahead. Tillers came down the neat rows of their fields to stand beside the road. They snickered and nudged each other and sometimes one could hear a suggestion that I must have a finer "tower" even than the king. The analogy had the inspired

hurtfulness of the rude, and the hurt lay in the heart of the proud old man to whom I was being taken.

Twice soldiers had to dash to the side of the road and knock heads with their javelin butts. I began to understand why the King of Thule could not forgive me.

The flesh of my back crawled, and I perspired more than the day called for. The captain sometimes looked at me, but he said no more.

After the long walk through the country came the city. First, the two-level towers of the poor on their awkward stilts; then towers of more levels, and towers that reared gorgeous mosaics of ivory and wood and pearl, seven and nine levels into the blue and gold sunlight. These rich men were indeed raised resplendently above the monotony of the sea.

Here in these nacreous towers lived the charming people whose eyes I had dazzled with carvings and paintings, and whose minds I had thrilled with theories. Now they turned from me in grief. I felt at my back the northwind of fear.

Then came the great square of Thule which is actually paved from one end to the other with stone. All of this stone was raided two centuries ago from the



great piles in the northern Ice Islands, and it is said that in the years of those raids 1,000 Thulians died—and twice that many Ice Islanders.

Here in this great sunlit square they would nail me to the plank. As sharply and dryly as the breaking of small sticks would sound the stone mallet on the pegs. The sound of the mallet would spank along the decorated tower walls and die away, and they would lift the plank to carry it out to sea. The crowd in the square would melt away, fearful and brooding because another vengeful "shee-shoon", which is to say, condemned spirit, would be loose upon the sea.

So I would drift into deserts with the suns banging my eyes while my home isle drifted in poverty.

The work of my own hand was the final blow to my hopes. How awesome was this dwelling! At the far end of the square it soared fourteen levels into the sky. Its grounds were walled with stone to twice the height of a man. Inside there, in the spacious gardens, rose four more towers, and even these were nine levels high.

All this had been done to my design, and now I trembled before it.

They did not take me to him. Instead, he came to me. He came

in the night to the jail. I saw with pain that he was now an old man, as if something had broken in him and loosed the tensions of his haughty bearing. He stood before me and studied my fear.

He stood that way while they drew my hands up to the low ceiling in a noose and bound my feet to a shackle in the floor. Then he spoke and I learned that the voice was still his.

He asked softly, "How could you have done this to me? To me, who loved you and rewarded you and gloried in your work? How could you have taken from me my last hope?"

I could say nothing. Then, in the tiny, windowless jail, his terrible pride shrieked, "How could you have made a laughing stock of me?"

He tore the lash from the great brute beside him, and he smashed it into my face. Repeating over and over, "How could you have made a laughing stock of me?" he lashed my face and chest and groin, and I tasted what was to come.

As a boy I was tortured by the Ice Islanders. I do not bear torture well. I moaned when his weak flailing warned me of what the big jailer could do. When he had exhausted himself, he sat down on the damp floor and beat feebly with his fists.

The jailer took up the lash. He grinned pleasantly to me and asked politely, "How would you like it, Master? Slow, or fast."

"No," I shouted. "No, Highest One, don't let him do this!"

But the poor old man was deaf to everything except his own misery and shame.

When I was again conscious, and the lights had stopped bursting in my eyes, the jailer was seated on a bench, resting. The fat of his chest heaved, and he ran a stubby hand across it to wipe away his sweat.

The king had risen from the floor. His silks were dirty and disheveled. "How many have you given him?", he asked the jailer, hoarsely.

"Barely thirty, Highest One."

Through the swimming of the room, I saw the jailer rise and start toward me, and I screamed.

"Let him down. Be gentle with him."

I allowed myself to sink to the calm Sea Floor.

He had me taken to his own apartments, in the highest levels of the Tower. In silence, he came every day and washed my wounds and dressed them.

He came several times each day and repeated this care in silence so that I wept when I was

alone for what I had done to him.

On the third day he spoke.

"The Lord Captain who took you has explained the reason you have come. It is good politics for the rock-latched islands like Thule and Hahn, to strengthen the freely floating islands. You may have the soldiers. Whatever you need." With that he rose to leave.

Then at the door he turned, the whisper of his robes as loud as the shouting of a thousand soldiers.

"Be very clear about this. I do not waste a soldier for the sake of *teri che*. I believe your plan to bind those three little islands into one rich, strong island will work. By aiding that plan, I do one more little thing to keep back the Ice Islanders and keep down the sea bandits. It strengthens Thule."

His gray eyes lingered momentarily as he turned and left me.

Again and again, while the captain and I worked on the plans for storming my home isle, the king's words stung me. "*I do not waste a soldier for the sake of teri che.*"

Again and again, this stinging drove my mind to the pool in the gardens of the Tower of my homeland. It is a hole into the

sea for decorative purposes and salt-lilies are grown there. On many islands there is such a pool in the gardens of the Tower.

I have often thought. "Behind all the guards at the walls of the Tower, there is a way in."

When the captain and I had completed our plans and had decided to embark in another four days, suddenly it came to me. "A craft can be built to go under the island and come up in the pool."

Such a surprise would save many soldiers of Thule, and many of my *teri che*.

In one moment things fell into place from countless observations and sources. How had I built and caulked the plumbing in the Great Tower of Thule? How does a fish roll in the water? How strong is the thickest of the round lenses of the glass of Hahn?

For two days, hardly taking time to eat or sleep, I stayed in my apartment drawing plans for such a craft. Once I went to the winery in the country and inspected two of the great hogsheads for storage which are large enough for a man to stand in.

The two giant hogsheads could be spliced together with mores than enough strength and more room inside than would be needed by two men. This would

be too buoyant, and so stone would have to line the bottom of the craft until it was almost ready to sink. Now, there would have to be a way to take on weight for sinking and get rid of it for coming back to the surface. So I would have a barrel braced on the floor midship and a pipe with a cock in that would let water into it so that the craft would sink.

From the iron that flows near their island, the Hahnese have contrived a pump which a man may work by a handle and force water up a height. I would have to arrange one of these pumps so that water could be forced from the barrel back into the sea, and thus we would come again to the surface.

I saw that when the craft sank I would go on sinking, however slowly, unless a means other than emptying the barrels were used to stop this motion. So I would have structures along the sides like the fins of a fish that would maintain a level of descent as long as the craft was moving forward.

It was in moving the craft forward that I had trouble. There are no winds under the sea, and to paddle my hogsheads seemed to me out of the question. A boat can be moved forward by thrashing the rudder in a crude duplication of the fish tail. But

I saw that no rudder I might design would move us from the edge of my home isle to the pool in the gardens of the Tower before the two or three occupants of the hogsheads fell from exhaustion.

I had to ask the captain for a delay in the embarkation. Naturally he was willing to wait for any plan that would spare his men. So I went back to my apartment and the problem of propulsion.

The more I thought about the clumsy action of a rudder, the more exasperated I became. There was something in this action that escaped me.

It was evening again, and I was utterly exhausted. I took a bottle of spirits from the cabinet and poured a drink. I sipped it while I stared at all the drawings I had made for propelling mechanisms. I poured another, large drink and went to the windows.

I do not deny that in my goings and comings about the Tower, I had never ceased to watch for the princess. I had not seen her and I did not see her now as my eyes searched the lawns and courts between the towers. But I longed deeply to see her, and suddenly I was drunk and very tired.

I awakened in the night with a headache. I rolled over in the

luxurious bed and buried my face, and abruptly, there was the idea for the propulsion.

The rudder need not move like the tail of a fish, it need not act like any living thing. It could be a spinning rudder of two blades tilted oppositely on their axis. This could be turned by a shaft extending into the craft. The shaft should have two cranks in it so that two men could turn at once.

Now, before noon, I finished all the drawings for my craft, and I sent a servant to the king. He invited me to lunch on his balcony, and there I showed him the drawings for this marvelous boat that would take men under the sea.

By the end of our lunch he had become as excited as I. Then suddenly, we were both saddened that the old days were gone when we had planned together like this.

He said simply, "Have the Lord Captain procure craftsmen and proceed at once to build it."

I was dismissed. He shook his head to prevent me from speaking.

VII

We built the undersea craft on one of the navy wharfs. In barely seven days we were ready for a trial.

We let the boat into water. I had added a barrel to the top of the structure through which the occupants could enter and leave. In the front of this superstructure I had had them caulk a thick lens of the glass of Hahn so that I could look forward under water.

I had somehow miscalculated the buoyancy and we had to add some stone to the floor. Finally, when I and the soldier who would go with me were both aboard, little more than the superstructure remained above water.

The poor soldier was shaking with fright but determined to die for Thule. I climbed the rungs back up into the superstructure and told the Lord Captain to pole us away from the wharf.

A luxurious litter appeared and came toward us.

I knew at once that it was the king. He could not stay away from this trial. I waited, standing in a barrel in the sea. I hoped for some warning or some encouragement from him. He simply motioned the Lord Captain and soldiers to be at ease. Then he waved to me in silence and stood waiting.

We had placed one of the fighters of Thule at a good distance from shore. I took one

last sighting on the fighter to make sure we were pointing toward it. Then, hurriedly, I closed and tightened the hatch in the top of the barrel and descended into the dark to hear the soldier's teeth chattering.

I said, "Soldier, are you standing by the crank?"

He gulped hard. "Yes, Master."

"Stay there. Start cranking when I tell you."

I fumbled in the dark and opened the cock of the barrel. Through the shallow, fast breathing of the soldier, I could hear water running into the barrel. Back at the window I caught a blurred glimpse of the fighter just before the sea lapped over the glass. Then I was looking at the cool, green of underwater and fishes turning past. My heart beat wildly. I let the light deepen a little and hurried back to close the cock, barking my shins on the gracings for the barrel.

"Now, soldier, start to crank!"

I joined my effort to his at my part of the shaft. I could hear his frightened breathing begin to even out with the labor over the cranks. I counted up to one hundred turns of the shaft while it became insufferably hot in the hogsheads.

"Keep cranking with all your might," I gasped and made my

way up to the window.

The green light outside had deepened shockingly. For the first time I felt fear of the sea. I scrambled to the pump and worked it for fifteen back-breaking strokes. Then I turned the crank with the soldier for twenty-five turns, and I could restrain my anxiety no longer. I went to the window and wiped fog from the glass. The light was reassuringly brighter.

"Rest a while, soldier."

"What Master?"

"Rest a while."

I kept wiping the fog from the window and watching the light brighten until I could see the swirling of the sea surface. Now we needed forward speed so the fins along the side would keep us from coming all the way to the surface.

"Let's start cranking again."

"Master, are we all right?"

"We're all right, soldier, as long as we crank."

I turned the crank another hundred times with the soldier and stumbled with exhaustion back to the window. The light was still all right. I looked hopefully ahead and to the sides, knowing we could not be near the fighter.

The soldier labored with great lung-bursting breaths. I told him to rest again, and I turn-



ed the crank alone for fifty times before I fell to the stones of the floor in a daze. The air was foul and hot and my lungs heaved desperately.

When I could speak, I commanded, "Turn the crank, soldier."

"Master, I'm dying."

"Soldier turn the crank or you will die."

At first with infinite weariness and then with dogged energy, I could hear him start turning the crank. I drug myself up to the window. Just as I wiped away the fog, I saw something off to the left. Then it was no longer there. I fell back into the hogsheads yelling at the soldier. "Crank, man! Crank!"

I banged my head and ripped skin from my shins getting to the screws that controlled the rudder. I turned the rudder the wrong way. Then I turned it rightly. I made myself count slowly to twenty. Then I straightened the rudder.

When I again wiped the fog from the window, there was the hull of the fighter floating magically in a green-yellow sky.

"Soldier, we're there. Just a little more turning. Turn, soldier."

He turned and I turned with him. Then, gasping as if in death, I clambered back to the window and cried out.

"Stop, man. Crank the other way."

For a moment I had thought we might pass under the fighter and rip off the superstructure, but we stopped short of her.

The soldier had collapsed. I thought I would never finish pumping the water out of the barrel. For a time, after I was able to open the hatch, I stood and gulped at the air like a dying fish. Then I lifted the soldier and held him while he breathed it.

I climbed out the hatch and stood on the forward hogshead with water occasionally lapping my feet. We had come around the fighter and placed her between ourselves and the shore. All on her deck were at the other side watching for us toward the island. We drifted to a gentle bump against the ship. I reached up and caught the rail and pulled myself slowly to the deck.

I stood there for a moment looking at their backs, and then I said loudly, "Captain, we are here."

The King of Thule is a complex man. When the fighter, towing the undersea craft, brought us back, he stood before me for a time and simply nodded his head. Then, no longer able to restrain himself, he

threw his arms about me and his old hands clapped my shoulders.

Still holding me he called to all about. "It is a holiday. The island must celebrate. There will be dancing and free wine."

As I walked back to the city beside his litter, I was not able to join in his enthusiasm. For I had not anticipated the agonies of the underwater trip. I knew that the distance out to the fighter had been little more than a third of the shortest distance from the shore of my home isle to the pool in its Tower gardens.

Suddenly I remembered the burial pools where we could surface for good air and rest in the protection of a tabooed place. Then I became as gay as the king was, and when I saw the many lords and ladies he invited to his apartments in my honor and the lavish banquet he had served, I knew that I had completely won his forgiveness. Somehow, having dissolved his shame by punishing me, his pride had risen again in the achievement of the day.

It was only natural that a gnawing hope rose in me. I watched every entering guest. I longed more than anything else in the world to see the princess, and I knew that it was impossible. He could not bring her here.

VIII

Two days later the undersea craft was ready on the deck of a cargo carrier, and the soldiers and ships were ready for the expedition to take the Tower of my homeland. I planned to take two soldiers to turn the crank. This would free me to handle the controls during the dangerous passage under the island and to keep careful eye on the beacons of daylight that would fall through the pools.

In the late afternoon, the king sent a servant for me. The man took me down smoothly in one of the lifts I had designed for the Tower. Then he led me out to one of the spacious gardens where the king was waiting for me.

"First I must show you something over here in the garden house."

He led me to a small service house where the gardeners kept their tools. With poorly hidden excitement he pushed me through the entrance and closed the door behind me.

I was in blackness. Then I saw, glowing before me, a garden hoe and a fork. There was also a board with glowing letters. "Master, you are not the only inventor."

What an old fox this king was. The door opened and he

was standing there as proud as Sha'charn.

"You know the glowing fish from the currents of Ohme?"

I nodded, smiling at his pleasure.

"I keep some of those fish in the pool over there. The light you saw in there is the stuff from their glowing stripes. It will last over a day, and you will have no trouble finding the controls of your craft."

Sha'tule, in sunset, and Sha'charn, yet a little higher, were splashing colors across a fluffy sky. The towers of the city were iridescent with fires. The king spoke as if he suggested a stroll. He spoke softly, too softly, and he laid his hand affectionately on my arm.

"Would you go with me to have cakes and wine with the princess?"

The island rocked and I put out a hand.

I was dismayed at what was happening to me. I stammered, "No. Highest One. That would not be right. Do not stir this thing."

"I think so too, but I can deny her nothing. Also, I would give you an opportunity to ruin my last hope or to vindicate the faith I had in you."

This last, I did not really hear. I was too dazed. I walked the way he led me, and the island

was rocked by a storm deep in the sea.

In a garden behind one of the lesser towers, we came to her. She sat at a table decorating a fabric. As we approached she dropped the needle and her hand trembled on the unfinished fabric.

I stared at her hand that was telling everything and then at her lovely face, and my chest ached. I bowed and it felt like I was being moved by strings. The king asked me to be seated and I stood unmindfully until he repeated his request. Then, after I was seated, I found that I was unable to speak.

She did speak, but her words meant nothing because her voice fluttered like a bird in a snare. "You have been traveling many years, Master."

"Pardon me, Princess?"

"I say . . . I say, you have been away . . . a long time."

"Yes, I have been to many islands, Princess."

It seemed, after six years, that this was going to be all we had to say.

The king cleared his throat, and I was grateful for the compassion in his voice. "The Master has come for soldiers to retake the Tower of his homeland from a false pretender."

A nurse appeared at the near-

by door, and I saw that she had with her the boy.

A thrill gripped me. This was my son.

The nurse saw us and grasped frantically to return the lad to the rooms. He fled her like a deer, bounding over the pretty flowers, and threw himself into his mother's arms. She drew his head to her breast and kissed his forehead and admonished him.

The nurse hurried forward to retrieve him, but the king waved her away. "Meet the child and me in a little while at the entrance to the Great Tower. I will go for a walk in the gardens with him."

Momentarily, I raised my eyes from the child to his mother's face, and found her staring at me with a great pride and warmth. Now, suddenly, we had so much to say to each other that we needed only our eyes to speak with.

The king rose and extended his hand to the child. "Come, my son, I will show you the luminous fish."

I stared at the boy and could not take my eyes from him. He was as favored as I had heard. He had his mother's famous looks. But I saw, too, the shock to hair that is my people's and the thin line of a mouth that is mine.

The king took the child's

hand and repeated, "Come, my son." His message was not lost on me. For this was his son, the only heir he would ever have to the Tower of Thule.

When we were alone, I went and sat beside her. The light of Sha'charn was soft on her lovely head. I saw that she was now a woman, even as I was no longer a young man. I had forgotten the thick beat of my heart.

It was as though the years since our parting had stood for nothing. I felt my ambitions for my homeland melting away like a mist. What did I care to bind together three ridiculous little islands?

She assured me, between our kisses, that her father would make her Provincial Queen of the island of Lani and allow me to marry her as consort ruler if I but asked it. In that beguiling twilight we both understood that this long separation would only deepen the delight of Lani. Our touch still had the magic of our first touch.

When I had, one last time, kissed her eyelids, her cheeks and her mouth, I left her and went to ask him for this simple happiness.

From behind a low cloud Sha'charn hurled a vast shaft of fire at the Great Tower of Thule. I

was momentarily dazzled. I looked up the cascading mosaics of fire to where an old man waited in the pinnacle of flame.

Then I awakened and knew that Lani would never be.

When I was admitted to his apartments, he stood at a window looking out over the wealth of his city. He did not turn.

I waited in silence and presently he spoke. "Do not ask of me what she wishes. If you ask it I will allow it. I suffer with both of you. But do not ask it of me."

Her face, in its last look of love, appeared before me and sharpened painfully till it blotted out the harsh reality of the room.

I heard his voice repeat, "Do not ask it of me."

I felt the huge wave of emotion on which she and I had risen begin to wash from me. Helplessly I stood there and felt it all wash from me until I was left empty as a cadaver that had somehow struck a pose of adoration.

Then her face was gone and I was back in the bitter reality of the king's room. From far below, the noisy happiness of the evening streets was a murmur of irony in this high place where the last light of Sha'charn lay across the rich carpet as might a fading, blue shroud.

He turned to me and gestured as if he deprecated that of which he spoke. "It is not a law, but an expectation, that the King of Thule will be Thulian. The people often prefer to see laws broken, but they do not easily tolerate the disappointment of an expectation.

"I have not much longer to live. If I declare the princess to be Queen and Interim Ruler the people will in time forget you and there will be no more than ill-mannered heckling when, eventually, the prince assumes the Tower. But if you marry her, if you remain about as a constant reminder..."

He spread his hands as a conclusion.

He turned again to the dying light from the window, and I knew that he saw a marvelous vista that I had planned. "I have built Thule into the greatest power on the sea. I want my son to rule what I have built."

I went down to the streets. I was numb with loss, and I understood that, all these years, I had existed on the hope that eventually he would let us live together. Now I found that I was going to have to live with the bleak certainty that I would never again hold her. At the thought, my mouth grew dry and my palms perspired.

I walked to the tower of the Lord Captain. While I awaited him, I looked for the last time upon my painting of Namora.

The captain came from his dining and looked at me questioningly.

"We leave tonight, Captain. It is the wish of the king."

We sailed with nine fighters. On the morning of the second day out, before Sha'tule had raised the first mists from the bobbing pumicine beds of my home isle, we lowered the underwater craft into the sea on a boom.

I remember the eerie light in the craft that came from the luminous stuff of the fishes, and I remember the soldiers cranking desperately in the stagnant air. I can still see the great balls of light from the burial pools where we surfaced and lay out on the hogsheads, gasping like monstrous fish.

Most clearly, I remember her face weeping in the dark of the sea.

I remember the garden pool of the Tower from which I stared across the alabaster lilies and heard only her voice murmuring of Lani. The great sound of the soldiers of Thule storming through the streets of my homeland did not still her murmur, nor did the screams of the guards at the gates as we three came



from behind and cut them down.

I suppose a quiet sea will always speak to me of Lani. In any case, I can recapture her face only as it drifts in the dark nether world.

There was a strange thing down there... little fish with rods straight up from their heads on which hung bell-like lanterns, brightly lighted. They came to the window and inspected me. Now they always invade her memory, like little clowns relieving tragedy.

IX

I had the prince made king that very noon. I was taking no more chances with the lords of my home island... and it is true, as has been claimed, that when we brought him from the prison to his Tower, he stumbled over corpses. He *would* have to do *that!*... not once, but twice.

The officers of Thule laughed. It really looked like we were placing a dolt in the Tower to rule the *teri che*.

I gave him time to bathe and dine after the rudely rushed ceremony. Then I had myself brought to him in his shoddy, administrative rooms. As the captain of a mercenary force asks his price for services rendered, I put before our new king the treaty which had already

been signed by the Kings of Parsos and of Torne.

He hesitated fretfully. He asked many questions.

I had expected him, in gratitude to me, and out of respect for the two great men who had already signed the document, to grab a pen with haste.

Instead the lout kept bringing up other matters of inconsequence. He interrupted my argument with asides to his new First Overlord.

This First Overlord was simply one of yesterday's rebels and behaved accordingly. His idea of polish was servility. Suddenly he glanced at me in fright.

Then, like a great bell, I reheard what this profound king had just asked yesterday's rebel.

He had asked, "Where is the Chacone they sent to me with food while I was in prison?"

He had asked this as though it had just now occurred to him.

Slowly I lowered the map which showed how Torne and Parsos could be most efficiently bound to our island.

The First Overlord was agitated. "She is here, Highest One. You asked that..."

"Never mind what I asked. Bring her."

Then he said to me apologetically, "Ah, Master, forgive these interruptions. So many things have come up. I know it is not

important to you, but I have fallen in love. Desperately! It happens she is a Chacone, and I must determine to whom she belongs so that I may pay the man a fair price. My mind will be much more receptive to your theories when I have settled this affair of the heart."

I was suddenly suffering a very bad chill and I shivered. He took the map from my hands and looked at it rather gaily and with new interest.

"Master, this is truly a moment in our history. To think that my signature will set this great plan in motion. You will be the hero of our people once they realize the greater prosperity and safety that will be theirs..."

The cringing First Overlord returned, and with him entered my little Chacone.

Like the broken barking of a north wind I tore at him. "Why you impudent little . . . you ungrateful . . . what do you know of love?"

He reddened and yammered. "You can't talk like that to me! I'm king now, not your pupil! Do you want to stand on a stone? What's this woman to you, anyway?"

"You know very well what she is to me. Do you think I'll bargain with you? No! I'll take her

to Parsos and let you drift to Chryo."

He stormed out of the room. "You're under detention. Don't forget it. You're under detention." And then at the door, melodramatically, "Oh, that you should have blundered with her loveliness before I found her!"

I could have choked him through a thousand deaths. I went to the wall and beat my fist.

The little Chacone wept openly. She came and took my bruised hand and kissed it. She sobbed, "Oh, Master, my heart will break. I have known, Master. The way he looked at me from the jail, I knew this would happen. But my heart will break."

I caught the finality in her statement, and I took her shoulders and stared into her face. "What makes you think I would give you up?"

"You will have to. I heard them talking." She sobbed and indicated the First Overlord who still stood at the door. "You will not get the plan for the islands unless you do."

She knew me better than I knew myself. She knew I would go back to the table and stare at the map of three islands bound in one. She knew I would turn then to stare at her, because she did not wait for that.

She left quietly with the First Overlord.

I was appalled at her certainty of me, and I knew that she was right. I knew it with a loathing that began to crawl in my belly like some hideous toad.

How could I be so dedicated to this plan of mine that I would destroy in this girl a delicate monolith of love? I was a crueler man than the sea bandit who had gloried that a thousand doves cooed for death. This dove would coo forever in some dark recess of her heart.

For it is true of the women of Chacone that they will kill themselves before they will let a man other than their owner come near them. But should that owner trade them to another they will remain as faithful to the master, and will then as savagely fight off the former owner as any other man. For this they are trained from childhood in some esoteric drilling of the spirit.

Thus I saw that I was going to shut myself from the heart of the Chacone, and my anger at the king dissolved in the slime of my loathing for myself. I went to him without the slightest accusation and got his signature on the treaty with Torne and Parsos.

I went down from the shabby Tower of my homeland and

walked alone among my people which are called *teri che*. They love to drink and there are many taverns in the city. I went into one of these and ordered spirits. Then I also ordered one for the amiable sot who instantly joined me.

We drank in silence for a while. Indeed, I had nothing to say to any man since I had shut myself from the tender heart of the Chacone. I stared without seeing across the talkative room and realized that a common man could come in here and brag with impunity that he had slept with the wives of ten lords. Then let him brag that he had slept with the Chacone of one lord, and he would be laughed out of the tavern.

The sot could stand the silence no longer. "Now, Master, you're done in, aren't you? Well, it's a fine thing you managed, getting the young prince to his Tower. Of course, this business of tying us up with Parsos and Torne, I don't see. But I suppose the king will decide on that."

I stood up to go. He grabbed my sleeve. "Now, Master, don't take offense. You ought to get to know your homeland. You've been away too long doing fine things for other islands. You ought to build a new Tower for our..."

I crashed him over the table

and into the near wall.

For a moment the place went silent. The wine seller glanced from his counter and shook his head.

"Now, Master, it's a fine thing to get drunk and disorderly, but let's not tamper with life and limb."

I stalked out to the streets, and again I was alone among my people. I accepted their respectful nods and bows and understood that I would always be separated from them by this heart that could love reason so deeply and reason away love so quickly.

They were right to fear my plan to bind the islands together. The threat of the Ice Islanders was too distant and the pinched faces of their children too close to weigh against the chilling logic of the step. For it was a plan born purely of reason. It threatened much of the spirit in them that was fashioned with such disorderly grandeur

from pride and prejudice and the demands of provincialism.

The street-lighters had set the lamps guttering, and the fog moved in and turned to pearl between them. Somehow the fog brought restraint and order and a muffling of guilt. As I walked the lamps came from the fog in a regular cadence and the damp planks of the street became an orderly path through chaos.

My enormous crime against the Chacone settled into a knot of guilt that I was going to have to live with. It was a guilt fate had made necessary if I was to put through the plan...and only I would put it through.

I stopped involuntarily and declared to the fog, "I am what I am!" Then, glancing about me, I walked on.

There was much to be set in motion so that the islands could be maneuvered together and bound. I would sail tomorrow for parsos and get things started.

—WYMAN GUIN

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LET ME CALL HER SWEETCORE

by DAVID R. BUNCH

*Ah, love! Without it, we would
be like robots. With it, robots
would be like — well, like what?*

I had just come in from a hard day of expediting at the power wafer works, and I and Dan the Can were getting settled for one of our usual eventless evenings. I thought.

I was making myself comfortable in a soof-air chair, one with pulsing upholstery that massaged buttocks, thighs and back, and Dan was standing by on his solid square-cornered feet, ready to do what I asked. But soon I saw he wasn't his usual self. When he changed the set of the chair pumps and brought me my so-mooso pipe and dozoff shoes I noted some strange agitation.

Always fearing for our relationship and wanting to get at

the truth-bottom of things at once I asked, "Something wrong, Dan?"

The lower half of his face crashed open like a scoop ready to dip. "Yoops," he said in the funny grating way sound always came out of him when he was upset. "Sompin' wroong."

"What's wrong then, Dan?"

"At's Noona. I bea woontin' her. Ever since I saw her in a shoop, yesterday when we strooled, I bea woontin' her."

"But Dan!" I said, amused and alarmed at the same time. "Is this Noona someone like you?"

"Noops. She's a — a — well, I guess yoo'd say she's a goorl."

"Sure, of course. But is she — well, is she a manufactured article like you? I mean, Dan, is she mechanical?"

Dan's protruding eyes that usually glowed a kind of deep red when he was feeling right changed to purple-blue. With those weird beams he looked straight at me. He didn't answer my question, but he laughed a screechy laugh that sent shivers over my body. "Heepa heepa heepa," it sounded.

"Change the air, Dan!" I shouted to reestablish my mastery. "Set the needle on tired man's roll, the way you know I always want it when I'm done with businessman's come-home." He moved sluggishly toward the pumps.

"Brisk, Dan!" I snapped. "Get it done." He moved then with speed that rattled the floor. "And another thing, Dan. Remember, you and I have been the perfect relationship for four years now. Or, in other words, ever since I obtained you from the government robot pool and started to work at the state wafer factory. Through all the working day I help make wafers to feed your ever-demanding power maw; you burn those wafers to serve me. Most of the human emotions are gone from me now. Thank God you never had any. We live the great life,

Dan, we function. Why should we be cluttering the works with this Noona?"

"Amusement," grated Dan. "Foon. Looove, too. Besides I get loonesome when you're oop at the wafer factory all day."

"Dan!" I almost screamed, so surprised was I that he should speak so. "Do we not play chess or checkers every night, emotionless games that give our steel-sharp minds a chance to function? Do I not let you sit in the rolling soof-air chair when you want to? Though for the life of me I don't know why you, with your steel shell, want to. Do I not feed you your power wafers every day promptly at the hour we begin our evening? In short, Dan, are you not one of the best-cared-for robots in town?"

"Need Noona!" he bellowed his reply. "Saw her inna shoop yesterday when we strooled. Saw that loovely name in raised loumps on her chest! Saw her firm hoord legs as she bent to pick up a sack, yesterday when we passed."

Then he started making the gestures that always brought me to my feet. He raised up the hinged section of his chest and threatened to tear out his heart, or, more specifically, the core where the power wafers digested. "Don't Dan," I pleaded, as

I always did. "That would kill you. And I need you — need you to give my life a meaning. Or more accurately, perhaps, I require your presence to make my life's non-meaning bearable. Anyway —"

"Goo see Noona," he suggested as a kind of ultimatum while his steel fingers played with the core where the wafers digested.

"Go see Noona," I promised, not knowing how else to save Dan. "Tomorrow. I'll take off work."

Next morning I arose from my bed that had the roko-pulse mattress with the exciting big spongy knobs and the tingly-lined holes, and I went to see Dan who was standing like a steel rock, firmly planted beside the soof-air chair. I feared that he had stood all night there in a kind of trance, dreaming metal dreams of Noona.

"Good morning, Dan," I said, checking his power unit.

He replied, "Goob morning," in a normal voice that made me have hopes that we would not have to go see his girl friend after all. But near the end of my breakfast Dan clumped over to stand beside me. "Goo see?" he asked, letting metal fingers idly flicker up and down past the place where his chest would come open.

"Yes Dan," I said, trying to smile, "a promise is a promise. And of course I want to see Noona too."

"Goob. I like you." And he caused his fingers to stop making those threats.

After breakfast I pushed the emergency leave button for time off from work, and the wafer factory sent up a green positive-reply flare from the Time-Clock building. So we started, led by Dan.

He clumped and rattled along almost at a run. He seemed entirely confident of his direction as we went past the power wafer plants, the rocket mills and many factories where machines were being whammed together by other machines at terrific pace amidst great noise. I did not remember going past these places yesterday, but Dan did not seem to be lost. And when we got to the place he sought, a shop in the big-number streets far from the main part of town, I understood. We had been there yesterday, but we had come by a different route.

"No woonderin' by the river and woostin' time this time," said Dan. "I coom today by the way I like. Short."

We went into a littered place where a small man sat by himself. There was something defeated in the way the arms pull-

ed the shoulders down and trailed along the chair sides, dumping hands toward the floor. His eyes were tragic, and when he spoke it was in a voice that hurried to have done with what it had to say.

"Hear noise?"

We heard it, a tappity-rap and rattle sound surely locked in a closet somewhere, or maybe in a basement under us. "When you don't hear it, it'll be all over. Don't care. Did all I could. Wouldn't listen."

"Who? What?" I blurted.

"Noona," he cried. "Committing suicide. Now. Hammering at the locks I put on. She'll get them. Nothing can seem to stop the crazy force she's working for now. But I don't care now."

"But why? What?"

"Something from yesterday. Couldn't understand. Good up to then, good functional. Helped in this parts store. Helped me to prosper. I could buy more wafers. She could help me more. It was a good arrangement. Then yesterday — Something passed in the street!

"Noona!" Dan shrieked. "Don't do it. Here's loove!" And he pounded across to a place in the floor and stamped hard on the boards. A hidden door sprang up. "Don't!" Dan screamed again, and he went to his knees to peer into the dark basement

hole. But the pounding continued that sounded like a hammer tapping a chisel.

I could see that each tap tore at Dan's power core and almost ripped him apart. I felt sorry for Dan the Can then, but soon I admired him. For once he had made his decision he hardly wasted a tick. He leaped through the air like a dedicated being and fell several feet to the cement floor of that basement hole. I heard him hit, and it sounded like dumping scrap at the mill. I shuddered.

When the noise of Dan's descent cleared away, the tapping noise seemed louder for a moment. Then it stopped altogether. New sounds took its place, the smallest of scratchy noises down in that basement dark, like metal sections being tenderly opened on hinges that made almost no noise. Through this were the two soft words, *Danny* — *Noona*, said with a strange metallic tenderness. Then they came up in each others arms.

The shopowner could hardly believe what he saw. His eyes became strangely bright when he saw them embrace.

Then a petty anger shone through the tragedy in them. "Worse than death!" he screamed at Noona, who definitely was a girl robot with steel ringlets to her head and roundness at

places. "Worse than if you'd torn out your power wafers!"

"Did doo," said Noona smiling a simperish, half-embarrassed smile out of her square, shining face.

"Did too," echoed Dan smiling worse than a bridegroom as he raised his chest's hinged part. "We're soo much a part of each oother."

Then I saw what they had done! They had exchanged power cores.

"Well, whatta ya know!" I blurted, and the shopowner yelled, "Hell's hinges, this will kill them both."

Noona of course came home to live with Dan and me, since the shopowner said he no longer had any use for her, couldn't trust her now anyway.

In the days that followed I saw how much the man was right in predicting disaster for the metal lovebirds. Noona and Dan, after a few weeks of dallying and toying with each other's metal sections and being enamored with each other's nearness, became, like almost any other married pair, bored and snappish with each other. And I, remembering my own less-than-successful marriage of many years ago, watched with bitter amusement as these two, with desires horribly mixed, tried to

dominate one another. I knew something must soon give way.

It happened one cold March evening, about six months after the nuptials of Noona and Dan.

I had called eight times for Dan to come change the chair massage from businessman's come-home to home-owner's bounce-around, and he hadn't obeyed. I went after him. I met him coming from the back beige room where he and Noona had quarters; his scoop-shaped face was twitching so that it shook his eyes. "I hate hate hate her!" he screamed. "But she has noo power power oover anything noow. I'm glad." He was clutching his power core in his metal fingers, having ripped it from Noona's chest! "I'm my own can now!"

"But Dan," I cried, "you can't use two! Take Noona back her power; then we'll turn her out of this house. We'll go back to our functional living. We'll be through with emotion and this silly love-and-stuff."

"Noo," shrieked Dan as he ripped her power from his chest. He clapped in his own and threw hers out the window; it landed in a garbage pail. "Damn Noona!" he continued, still shrieking. "She's rooned my life. But I have looved her — I could never stand to see her with an oother."

"Let's go adjust the massage and be like old times," I suggested.

So we did, after awhile. And after many weeks Dan seemed almost to forget that tragic period when he had been slave to Noona and love's sickening emotions. Now our days are spent, much the same as before Noona, among the clean-cut little victories of functional living. Eight hours I work at the power wafer factory so that I may earn enough wafers to power Dan the can for eight hours of game-playing and care in the soof-air chair. Eight hours I sleep. And Noona just lies in the back beige room, cold, alone, without any power, waiting for some master tinkerer in robots I suppose to come and repair her. Dan and

I hardly ever mention her name as we grow quietly older, so assured, so unbothered, coolly living our never changing functional routine.

But sometimes when the moon shines down a certain way on the wafer factory roofs and there is a soft touch of valentine weather in a pink and peaceful time, and steel lovers sing to their steel ladies in the big entertainment panels of the wall, I see Dan get that funny look. Then I say, "Dan, you've been working too hard again, Dan; time for your vacation again, Dan." And before he can react to stop me I rush over to jerk out his power wafers—to save him from—well, to save him from his foolish foolish self.

—DAVID R. BUNCH

FORECAST

Next issue brings long stories by Cordwainer Smith, J. T. McIntosh and James H. Schmitz, as well as shorts by—well, we'll see how many we can fit in. We think it will be a rather outstanding issue, in terms of its fiction content. But what we want to tell you about right now is not the fiction but the features.

Feature one: The next Willy Ley column is produced at the suggestion and special request of Betsy Curtis, herself a first-rate writer. "What," she asked us recently, "are all those different kinds of things called orreries that I see in museums and shops?" We fielded the question neatly by passing it on to Willy; and the result is his upcoming column, which will tell you rather more than you thought there was to know about orreries (otherwise known as the poor man's planetarium) and their successor devices for portraying planetary orbits.

Feature two: Next issue we bring back our regular book review column, an event which we have postponed until we were able to find the reviewer we liked best. We've got him now. His name is Algis Budrys.

LET ME CALL HER SWEETCORE

TO AVENGE MAN

by LESTER DEL REY

ILLUSTRATED BY MORROW

*Men were dead, but they had left
mourners behind . . . determined
to track down their murderers!*

I

Hate spewed across the galaxy in a high crusade. Metal ships leaped from world to world and hurtled across space to farther and farther stars. Planets surrendered their ores to sky-reaching cities, built around fortress temples and supported by vast networks of technology. Then more ships were spawned, armed with incredible weapons, and sent forth in the eternal search for an enemy.

In the teeming cities and aboard the questing ships, soul-wrenching music was composed, epic fiction and supernal poetry were written, and great paintings and sculpture were developed, to be forgotten as later and nobler work was done. Science strove for the ultimate lim-

it of understanding, fought against that limit, and surged past it to limitless possibilities.

But behind all the arts and sciences lay the drive of religion. And the religion was one of ancient anger and dedicated hate.

The ships filled the galaxy until every world was conquered. For a time they hesitated, preparing for the great leap outward. Then the armadas sailed again, across thousands and millions of light-years toward the beckoning galaxies beyond.

With each ship went the holy image of their faith and the unsated and insatiable hunger of their hate...

II

The cat-track labored up the rough road over the crater

wall, topped the last rise and began humming its way down into Aristarchus. As it dipped into the ink black of its own shadow from the sun behind, its headlights flashed on. Around it, the jagged rocky walls scintillated in a riot of reflected colors from crystal fractures that had never been dulled by wind or rain.

Inside the cab, the driver's seat groaned protestingly at the robot's weight as Sam shifted his six hundred terrestrial pounds forward. Coming home was always a good time. He switched lenses in his eyes and began scanning the crater floor for the first sight of the Lunar Base Dome, though he knew it was still hidden around a twist of the trail.

"You don't have to be quite so all-fired anxious to get back, Sam," Hal Norman complained. But the little selenologist was also gazing forward eagerly. "You might show some appreciation for the time I've spent answering your fool questions and trying to pound sense into your tin head. Anybody'd think you didn't like my company," he pouted humorously.

Sam made the sound of a human chuckle as he had taught himself to acknowledge all the verbal nonsense men called humor. But truth compelled him to

answer seriously. "I like your company very much, Hal."

He had always liked the company of the men he'd met on Earth or during his many years on the Moon. Humans, he had decided long ago, were wonderful. He had enjoyed the long field trip with Hal Norman while they collected data from the automatic recorders scattered over the lunar surface. But it would still be good to get back to the dome, where the men had given him the unique privilege of joining them. There he could listen to the often inexplicable but always fascinating conversation of forty men. And there, perhaps, he could join them in their singing.

Music and reading were the chief recreations of the men here. There were thousands of microbooks in the dome library, brought in a few at a time by many men over the long years. They were one of the few taboos. It was against orders for Sam to read any of them, and a man had once told him that it was to save him from unnecessary confusion. But the collection of music was not forbidden, and he was often permitted to join in their singing. All the robots had perfect pitch, of course. But only Sam had learned to sing acceptably enough to win a place in the dome.

In anticipation, he began humming a chanty about the sea he had never seen. The cat-track hummed downward between the walls of the road that had been crudely bulldozed from the rubble of the crater. Then they broke out into the open, and he could see the dome and the territory around it.

Hal grunted in surprise. "That's odd. I hoped the supply rocket would be in. But what are those three ships doing here?"

Sam cut off the headlights and switched back to wide-angle lenses. Now most of the crater was visible, until it vanished against the horizon, giving place to the blackness of the sky and the myriad colored pinpoints of the stars. Ahead lay the low dome that roofed the Base, with its biphasic microwave antenna tracking the manned space platform that circled Earth. Half a mile beyond it stood three ships, bulky with exposed tanks and each carrying a huge passenger globe encased in bracing girders. They didn't look like supply rockets.

Sam's eyes swept across the crater floor, almost to the horizon. There he could make out the crumpled wreck of an early ship, still surrounded by the supply capsules that had been sent on automatic control to

keep the stranded crew alive until rescue could be sent. The three ships bore a striking resemblance to the one that had crashed. The only other such ships were those used in the third expedition. But they had been parked in orbit around Earth after the end of the third expedition fifty years ago. Once the Base was established, their capacity had no longer been needed, and they were inefficient for routine supply shipment and the rotation of the men stationed here.

Before he could comment on the ships, the buzzer sounded, indicating that Base had spotted the cat-track. Sam flipped the switch and acknowledged the call.

"Hi, Sam." It was the voice of Dr. Robert Smithers, the leader of Lunar Base. "Butt out, will you? I want to talk to Hal."

Sam could have tuned in on the communication frequency with his own receptors, since the signal was strong enough at this distance. But he obeyed the order to avoid listening as Hal reached for the handset. There was no way to detune his audio receptors, however.

He heard Hal's greeting. Then there was silence for at least a minute.

Hal's face was shocked and

serious when he finally spoke again. "But that's damned nonsense, Chief! Earth got over such insanity half a century ago. There hasn't been a sign of... Yes, sir... All right, sir. Thanks for not taking off without me."

He hung up the handset, shaking his head. When he faced Sam, his expression was unreadable. "Full speed, Sam."

"There's trouble," Sam guessed. He threw the cat-track into its top speed of thirty miles an hour, fighting and straining with the controls. Only a robot could manage the tricky machine at such a rate over the crude road, and it required his full attention.

Hal's voice was strange and harsh. "We're being sent back to Earth. Big trouble, Sam. But what can you know of war and rumors of war?"

"War was a dangerous form of political insanity, outlawed at the conference of 1983," Sam quoted from a speech that had come over the radio. "Human warfare has now become unthinkable."

"Yeah. Human war." Hal made a rough sound in his throat. "But not cruel and inhuman war, it seems... Oh, hell. Stop looking so gloomy; it's not your problem."

Sam decided against chuckling this time, though reference

to his set, unsmiling expression was usually meant to be a form of humor. He filed the puzzling words away in his permanent memory for later consideration.

The terminator was rushing across the lunar surface. It would soon be night. More than half of the near crater was already hidden in blackness, though sunlight was still reaching the Base, and the territory beyond was in glaring white light. But the undiffused shadows stretched long behind every projection in the road. Seeing was hard as they neared the dome, and all Sam's attention had to be directed to his driving. Behind him, he heard Hal getting into the moonsuit to leave the cab.

Sam brought the cat-track to a halt to let Hal out at the entrance to the sealed underground hemisphere of lunar rock that was the true dome—The light upper structure was simply a shield against the heat of the sun. He drove the machine under that and shut off the motor.

As he emerged from the airlock, air gushed out of small cavities of his body and made a haze of glittering crystals that fell slowly to the surface. But he felt no discomfort. There was only the faint click as a pressure sensitive piezzo-electric switch

activated a relay inside his torso. That switch was designed as an emergency measure, to turn his power on if there should be a puncture of the dome while he was inactivated, and now it merely indicated the pressure drop. Maybe one of the reasons the men liked having him inside was the existence of that switch, since it could save their lives — though he hoped there were other explanations. There had been no room in the Mark Three robots for such devices.

He saw some of the Mark Threes waiting just beyond the entrance as he approached. There were tracks in the lunar dust leading to the space ships, but whatever ferrying they had done was obviously finished, and they were merely standing in readiness. They were totally unlike him.

Sam bulked over the tiny black robots. One of them, directly in his path, slipped under his raised arm to make room for him, moving with a light gracefulness that he couldn't approximate. He was bulky and mechanical, designed only for function, in the early days when men needed help on the Moon. The Mark Threes were almost childlike, under their dark enamel, and their size and weight had been pared down to less

than that of a man. There had been thirty of the model originally, but accidents had left only a few more than twenty. And of the original Mark Ones, only Sam was still functioning.

"When do we leave?" he called to one of the little robots over the radio circuit.

The black head turned slowly toward him. "We do not know. The men did not tell us."

"Didn't you ask them?" he called. But he had no need of their denial. They had not been told to ask.

They were still unformed, less than five years old, and their thoughts were tied to the education given by the computers in the creche. They lacked more than twenty years of his intimate association with men. But sometimes he wondered whether they would ever learn enough, or whether they had been too strongly repressed in training. Men were afraid of robots back on Earth, as Hal Norman had once told him, which was why they were still being used only on the Moon.

He turned away from them and went down the entrance to the inner dome. The entrance led to the great community room, and the men were all gathered there, wearing moon-suits. They were arguing with Hal as he began emerging from



TO AVENGE MAN

RAY HARRYHAUSEN

the lock, but at sight of Sam the words were cut off. He stared about in the silence, feeling suddenly awkward.

"Hello, Sam," Dr. Smithers said finally. He was a tall, spare man of barely thirty, but seven years of responsibility here had etched deep lines into his face and put gray in his mustache, though his other hair was still jet black. "All right, Hal. Your things are on the ship. I cut it fine waiting for you, so we're leaving at once. No more arguments. Get out there!"

"Go to hell!" Hal told him. "I don't desert my friends."

Other men began moving out. Sam stepped aside to let them pass, but they seemed to avoid looking at him.

Smithers sighed wearily. "Hal, I can't argue this with you. You'll go if I have to chain you. Do you think I like this? But we're under military orders now. They're going crazy back there. They didn't find out about the expected attack until a week ago, as near as I can learn, but they've already canceled space. Damn it, I can't take him! We're at the ragged limit of available lift now, and he represents six hundred pounds of mass—more than four of the others," he raised his arms slightly.

Hal gestured sharply toward the outside. "Then leave four of

those behind. He's worth more than the whole lot of them."

"Yeah. He is. But my orders specify that all men and the maximum possible number of robots must be returned." Smithers twisted his lips savagely and suddenly turned to face the robot. "Sam, I'll give it to you straight. I can't take you with us. We have to leave you here alone. I'm sorry, but that's how it has to be."

"You won't be alone, Sam," Hal Norman said. "I'm staying."

Sam stood silently for a moment, letting it register. His circuits found it hard to integrate. He had never thought of being separated from these men who had been his life. Going back to Earth had been easy to accept; he'd gone back there once before. Little hopes and future-pictures he hadn't known were in his mind began to appear.

But with those came memories of Hal Norman's expressed hopes and dreams. The man had showed Sam a picture of his future wife and tried to describe all that such a creature meant to a man. He'd spoken of green fields and the sea. He'd raved about Earth too often during the days they were together.

Sam moved forward toward Hal. The man saw him coming and began to back away, but he was no match for the robot. Sam

held his arms and closed the moonsuit, then gathered the man up carefully. Hal was struggling, but it did no good against Sam's determination.

"All right, Dr. Smithers. We can go now," Sam told the Chief.

They were the last to leave the dome. The little black robots were already marching across the surface, with the men straggling along behind them. Smithers fell into step with Sam, moving as if the burden was on his back instead of in the arms of the robot. Hal had ceased struggling. He lay outwardly quiet; but through the suit, Sam's body receptors picked up sounds that he had heard only twice before on occasions he tried not to remember. They were the sounds of a man trying to control his weeping.

Half way to the ships, faint words came over the radio. "Put me down, Sam. I'll go quietly."

Sam obeyed, and the three moved on together. Smithers' hand touched Sam's shoulder, and the man's words came through his suit. "Thanks, Sam. Handling Hal was a favor I no longer had the right to ask of you. Well, it looks as if you're going to have a lot of time to kill. And we..."

He didn't finish the thought. Sam mulled over the words he

could understand, and even they made no sense. With the men all gone, there would be no spare time. There would be more than he could possibly find time to accomplish. The great solar observatory across the crater would need tending, the selenographs would have to be checked and at least the routine reports from all instruments would have to be sent off weekly. He should have had hours of instructions, but now it looked as if there would be no time for more than hasty orders.

By the time the three reached the nearest ship, the other men and the little robots were all aboard. The Chief motioned Hal up the ramp. For a moment the younger man hesitated. He turned toward Sam, started to make a motion, and then swung away and dashed into the ship, his shoulders shaking convulsively.

Smithers still stood after the other had disappeared. The radio brought the sound of a sigh, before the man moved. But there were no words.

"You haven't given me my orders," Sam reminded him.

Smithers shook his head, as if coming out of some deeper thoughts of his own. His lips twitched into what might have been a smile. "No, Sam. There are no orders. All orders, past,

present or future — all are canceled. There is no more work. Space is finished!"

He put his foot on the ramp and turned partly away from Sam. Then abruptly he swung back.

"Good-by, Sam," he said thickly. His right hand lifted in a brief gesture. "Don't forget the books!"

A moment later, he was through the entrance to the ship. The ramp was drawn in after him, and the great outer seal of the rocket ship began to close.

III

Sam ran back to the entrance to the dome, to avoid the blast. As he ran, he realized slowly the meaning of what Smithers had said.

No orders! There hadn't even been orders left for him to come back here, back to the place men had left. Yet his feet went on moving, as if acting on some strange orders of their own.

The edge of darkness had touched the dome now, leaving the rocket standing in the last light as he turned back. He watched the takeoff of the three heavily laden ships. They staggered up slowly on great tails of flame. They rose on sharper jets until they were above the crater walls and against the black of

space, carrying the men toward the rendezvous with Earth's orbital station. Sam watched until they were beyond the range of his strongest vision. Then, without orders or knowledge of why he acted, he turned into the dome. It was silent and empty around him.

He stared at the clock on the wall and at the calendar that they had kept marked off. He hadn't found how long they would be gone. But Smithers' words gave a vague answer—he would have a lot of time to kill. That could mean anywhere from one month to most of a year, judging by the application of similar phrases in the past. He looked at the shelves filled with microbooks for a few moments. Then he went outside, to stare up at the Earth in the sky above him. There were spots of light in the dark areas that he knew to be the cities of men. There were men there, a quarter of a million miles away, and there must be speech and man-laughter and singing.

He stood there a long time, staring upwards. Finally he went back inside, to tidy up the mess the men had made in their hasty leaving. He folded the few spare clothes and put them away, cleaned the cooking equipment and straightened up as best he could. Hal had left the picture

of the female man about whom he'd spoken so often, and Sam stared at it, trying again to understand. At last, he put it carefully into a drawer, closing it away from view.

The microbooks Hal had liked to keep near him were in the same drawer, and they reminded Sam of Smithers' last words.

"Don't forget the books!" The words seemed needless, since Sam could never forget unless ordered to do so. And the Chief had said there were no orders. There wasn't even an order against reading the books now.

And that, Sam realized, might have been what Smithers was indicating to him in those final words.

The second day after the take-off of the ship, Sam was watching the dark areas of Earth again when some of them grew suddenly brighter. New spots of brightness rose and decayed during the hours he watched. They were far brighter than any city should have been. Other spots glowed where no cities had been before. But eventually, they all faded. After that, there were no bright areas at all.

As Earth turned slowly, he saw that all the cities on Earth were now dark.

It was a mystery for which he had no explanation. He went inside to try the radio that brought

news and entertainment from the relay on the orbital station, but no signal was coming through. He debated calling them, but initiating such a call was reserved for Smithers. And he was gone.

He was outside again, staring at Earth the next time the familiar spots that should have been cities swam into the darkened side of Earth. There were still no spots of lights. Even with the small telescope used for the infrequent observations of Earth, he could detect no sign of the cities. There was only the hint of a dull glow in a few places, too diffuse to be from normal lights. And the radio was silent.

He paced about, trying to force his eyes to see what was not there to see. Men had to be there! And the lights of their cities would be the proof of it—the assurance that men were still talking and making what they called jokes and singing, even if they were beyond his hearing. Now suddenly, he needed that proof, and there was no evidence! It was as if all men had disappeared with the going of the few from the Moon!

Through all the fifth day, he waited before the radio with the gain turned up to its maximum. The men who had left here should have arrived at their des-

tination now. He knew there was no reason to expect such a call; men were not obligated to report to a robot, as they would have reported to other men. But his brain circuits had been filled with odd future-pictures that drove him to the set and kept him there for long hours after he knew there would be no signal for him.

Finally, he knew there would be no call. He got up and went into the empty room where the men had spent so much of their time.

Eventually his pacing led him to the music player. They had let him use it at times, and he turned to it now, to fill the emptiness of the room and of his mind with sound. He found a tape that was one of his favorites and threaded it. But when the final chorus of Beethoven's Ninth reached its end, the dome seemed more empty and silent than ever. He found another tape, without voices this time. And that was followed by another. It helped a little, but it was not enough.

It was then that he turned to the books, taking one at random. It was something about Mars, by a human named Edgar Rice Burroughs, and he started to put it back. He had already learned enough about astronomy from the education machine.

But at last he threaded it into the microreader and sat down to read.

It started well enough, and it was about some strange kind of man, not about astronomy. But then...

Sam made a strange sound, only slowly realizing that he had imitated the groan of a man for the first time in his existence. It was all madness!

He knew men had never reached Mars — and couldn't reach *this* Mars, because the planet was totally unlike what he knew existed. It must be some strange form of human humor. Or else there were men unlike any he had known and facts that had been kept from him. The latter seemed more probable.

He struggled through it, to groan again when it ended and he still didn't know what had happened to the strange female man who was a princess and who laid highly impossible eggs. But by then he had begun to like John Carter. He wanted to read more. He was confused — but even more curious than puzzled. Eventually, he found the whole series and read them all.

It was much later that one of the books solved some of the puzzle for him. There was a small note before the book really began: *This is a work of speculative fiction; any resemblance to*

present-day persons or events is entirely coincidental. He looked up *fiction* in the dictionary he had seen the men use and felt better afterwards. It wasn't quite like humor, but it wasn't fact, either. It was a game of some kind, where the rules of life were all changed about in idiosyncratic ways. The writer might pretend that men liked to kill each other or were afraid of women, or some other ridiculous idea; then he tried to show what might happen. It was obviously taboo to pretend about real people and events, though some of the books had stories that used names and backgrounds that had the same names as those in reality.

The best fiction of all sometimes looked like books of fact, if the writer was clever enough. "History" was mostly that. There was a whole imaginary world called Rome, for instance. It was fortunate that Sam had been taught the simple facts of man's progress by the education machine before reading such books. Men, it was true, had sometimes been violent, but not when they understood all the facts or could help it.

In the end he evolved a simple classification. If a book made him think hard and forced him to strain to follow it, it was fact; if it made him read faster

and think less as he went through it, it was fiction.

There was one book that was hardest of all to classify. It was an old book, written before men had gone out into space. Yet it was full of carefully documented and related facts about an invasion of flying saucers from far in space. Eventually he was forced to decide from the internal evidence that it was fact; but it left him disturbed and unhappy.

Hal Norman had referred to inhuman war, and Dr. Smithers had mentioned an attack. Could it be that the strange ships from somewhere had struck Earth?

He remembered the brilliant lights over the cities, so much like the great ray weapons described in some of the fiction about space war. Sometimes there were elements of truth even in fiction. There had been a book about men who went back in time and fought totally impossible monsters—and then he had discovered that there really had been dinosaurs of that size and kind.

There was a book about those who spoke for Boskone, and puzzling suggestions that the evil men who seemed to have existed were agents of that Boskone, or of the Eich. It would at least explain why the probably fictional Hitler could be treated as

fact, in books that otherwise did not seem to be fiction.

If invaders had come in great ships to fight against Earth, it might take men longer than Sam cared to think about to fight them off. If there were flying saucers or ships of the Eich attacking Earth, some of his men might never come back at all! And there was nothing Sam could do here to help them.

He went outside to stare at the sky. Earth still showed no sign of cities. They must be blacked out, as they would be if flying saucers were in their skies. He searched the space over the Moon, but he could find no strange craft. Then he went back inside to read through the microbooks again.

It was poetry that somehow finally shoved the worry from his mind. He had tried poetry before, and given up, unable to follow it. But this time he made a discovery. He tried reading it aloud, until it began to beat at him and force its rhythm on him. He was reading Swinburne's *Hymn of Man*, attracted by the title, and suddenly the words and something besides began to sing their way into his deepest mind.

He went back over four lines again and again, until they were music, or all that music had tried to say and had failed:

*"In the gray beginning of things
that began,
"The word of the earth in the
ears of the world, was it God?
was it man?"*

Sam went up and down the dome for most of that day, chanting to himself that the word of the earth in the ears of the world was *man*! Then he turned back to other poetry.

None quite equaled that one experience, but most of it stirred his circuits in strange ways. A book of limericks even surprised him twice to the point where he chuckled, without realizing that he had never done that spontaneously before.

There were slightly over four thousand volumes in the little library, including the technical books. He timed them carefully, stretching them by rereading his favorites, until he finished the last at exactly midnight on the eve of the takeoff anniversary.

The next twenty-four hours he spent outside the dome, watching the sky and staring at Earth, while his radio receptors scanned all the frequencies.

It had been a lot of time already killed. But there was no signal, and no rocket ship blasted down, bringing back the men.

At midnight he gave a sighing sound and went back inside the dome. In the technical section,

he unlocked the controls for the atomic generator and turned it down to its lowest idling rate. He came back, turning the now dim lights off as he moved. In the main room, he put his favorite tape on the player and the copy of Swinburne in the micro-reader. But he did not turn them on. Instead, he dropped his heavy body quietly onto the floor before the entrance, where the men would be sure to see him when they finally returned.

Then one hand reached up firmly, and he turned himself off.

IV

Sam's eyes turned toward the entrance as consciousness snapped on again. There was no sign of men there. He stood up, staring about the dome, then hastened outside to stare across the floor of the crater. It lay bare, except for the old wrecked rocket ship.

Men had not come back.

Inside again, he looked for something that might have fallen and hit his switch. The switch itself was still in the off position, however. And when he turned on the tape player, no sound came. It was confirmation enough. Something had happened to the air in the dome, and his internal switch had gone

into operation to turn him on automatically.

A few minutes later he found the hole. A meteoroid the size of an egg must have hit the surface above. It had struck with enough force to blast a tiny craterlet almost completely through the dome, and internal pressure had done the rest.

He secured patching material and began automatically making the repairs. There was still more than enough air in the tanks to fill the dome again.

Sam sighed as the first whisper of sound reached him from the tape player. He flipped his switch back to on position before the rising pressure negated the emergency circuit. He still had to get back to the entrance to resume his vigil. It had simply been bad luck that had aroused him before the men could return.

He moved back through the dome, hardly looking. But his eyes were open, and his mind gradually began to add the evidence. There was no way to tell how long he had been unconscious; he had no feeling of any time. But there was dust over everything — dust that had been disturbed by the outrushing air, but that had still patina-plated itself on metal firmly enough to remain. And some of the metal showed traces of corrosion. That

must have taken years!

He stopped abruptly, checking his battery power. The cobalt-platinum cell had been fully charged when he lay down. Now it was at less than half charge. Such batteries had an extremely slow leakage. Even allowing for residual conductance through his circuits, it would have taken at least thirty years for such a loss!

Thirty years! And the men had not come back.

A groan came to his ears, and he turned quickly. But it had only been his own voice. And now he began shouting. He was still trying to shout in the airless void as he reached the surface. He caught himself, bracing his back against the dome as his balance circuits reacted to some wild impulse from his brain.

Men would never desert him. They had to come back to the Moon to finish their work, and the first thing they would do would be to find him. Men couldn't just leave him there! Only in the wild fiction could that happen, and even there only the postulated evil men would do such a thing. *His* men would never dream of it!

He stared up at Earth. The dome was in night again, and Earth was a great orb in the

sky, glowing blue and white, with touches of brown in a few places. He saw the outline of continents through the cloud cover, and reorganized the great cities that must lie within the thin darkened area. There should have been lights visible there, even against the contrast of brighter Earthlight.

But there was no light.

He sighed soundlessly again, and now he felt himself relaxing. The attackers must still be hovering there! The dangerous Ufo-things from space. Men were still embattled and unable to return to him. Thirty years of that for them, and here he was losing balance over what had been only a year of his conscious time!

He faced the worst of possibilities more calmly now. He even forced himself to admit that men might have been so badly crippled by the war that they could not return to him—perhaps not for more time than he could think of. Smithers had said they were abandoning space, at a time when the attack had not yet come. How long would it take to recover and regain their lost territory?

He went back into the dome, but the radio was silent. Hesitantly, he initiated a call to the orbital station. After half an hour, he gave up. The men there, if men were still there, must be

keeping strict radio silence.

"All right," he said slowly in to the silence of the dome. "All right, face it. Men aren't coming back for a robot. Ever!"

It was a speech out of the fiction he had read, rather than out of rationality. But somehow saying it loudly made it easier to face. Men could not come to him. He wasn't that valuable to them.

He shook his head over that, remembering the time he had been taken back to Earth after twenty years out of the creche and on the Moon. The Mark One robots had all been destroyed in the accidents and difficulties of getting the Base established, except for Sam. Supposedly better Mark Two robots were sent to replace them, but they had been beset by some circuit flaws that made them more prone to accident and less useful than the first models. More than a hundred had been sent in all—and none had remained. It was then they called Sam back to study him.

There, deep in the security-hidden underground robot development workshops, he had been tested in every way they knew to help them in designing the Mark Three robots. And there old Stephen DeMatre had interviewed him for three whole days. At the end of that time, the

man who had first introduced him to his place with men had put a hand on his metal shoulder and smiled at him.

"You're unique, Sam," he'd said. "A lucky combination of all the wild guesses we used in making each Mark One individually, as well as some unique conditioning among that first Base staff. We don't dare duplicate you yet, but some day the circuit control computer is going to want to get your pattern in full for later brains. So take good care of yourself. I'd keep you here, but... You take care of yourself, Sam. You hear me?"

Sam had nodded. "Yes, sir. Do you mean you can make other brains exactly like mine?"

"Technically, the control computer can duplicate your design," DeMatre had answered. "It won't be just like your brain—too many random factors in any really advanced mechanical mind unit—but with similar capabilities. That's why you're worth more money than this whole project without you. You're worth quite a few million dollars, and it's up to you to see valuable property like that isn't destroyed. Right, Sam?"

Sam had agreed and been shipped back to the Moon, along with the first of the Mark Three robots. And maybe his trip back

had been of some use, since the new models worked as well as their limitations permitted. They were far better than the preceding models.

Maybe he wasn't valuable enough to men for them to come for him now. But by DeMatre's own words, he was one of their most valuable possessions. If it was up to him to see that he wasn't destroyed, then it was up to him also to see that he wasn't lost to men.

If they couldn't come for him, he had to go to them.

The question was: How? He couldn't project himself by mind power like John Carter. He had to have a rocket!

With the thought, he went dashing out through the entrance and heading toward the old wreck. It stood exactly as it had after the landing that had ruined it, with half its hull plating ripped off and most of its rocket motors broken. It could never be flown again. Nor could the old supply capsules. They had burned out their tubes in getting here, being of minimum construction. There wasn't even room inside one for him.

Sam considered it, making measurements and doing the hardest thinking of his existence. Without the long study of all the technical manuals of the dome library, he could never

have found an answer. But eventually he nodded.

A motor from the big shop could be fitted to a capsule. It would be barely strong enough. But the plating could be removed to lighten the little ship; Sam needed no protection from space. And the automatic guidance system could be removed to make enough room for him. He could operate it manually, since his reaction and integrating times were faster than that of even the system.

Fuel would be a problem, though there was enough oxygen in the dome storage tanks. It would have to be hydrogen, since he could find rocks from which that could be released by the power of the generator. Fortunately, lunar gravity was easier to escape than that of Earth.

He went back to the dome and found paper and pencil. He was humming softly to himself as he began laying out his plan. It wasn't easy. He might not be skilled enough to pilot the strange craft to the station. And it would take a great deal of time. But Sam was going to the men who wouldn't come to him!

V

It takes experience to turn engineering theory into

practice. Almost three years had passed since Sam's awakening before the orbital station swam slowly into view before him. And the erratic takeoff and flight had been one that no human body could have stood. But now he sighted on the huge metal doughnut before him, estimating its orbit carefully. There were only a few gallons of fuel remaining in the tanks behind him, and he had to reach the landing net at the first try.

His first calculations seemed wrong. He glanced down at the huge orb of Earth and flipped sun filters over his eyes. Something was wrong. The station was not holding its bottom pointed exactly at the center of Earth as it should have done; it was turning very slowly, and even its spin was uneven, as if the water used to balance it against wobbling had not been distributed properly. Beside it, the little ferry ship used between station and ships from Earth was jerking slightly on the silicone-plastic line that held it.

Sam felt an unpleasant stirring in his chest where most of his brain circuits lay. But he forced it down and computed his blast for all the factors. He had learned something of the behavior of his capsule during the minutes of takeoff and the later approach to the station. His fin-

gers moved delicately, and fuel metered out to the cranky little motor.

It was not a perfect match, but he managed to catch himself in the net around the entrance to the hub. He pulled himself free, as the capsule drifted off, and began scrambling up to the lock. A moment later, he was standing in the weightlessness of the receiving section. And from the sounds of his feet, there was still air in the station.

He froze motionless as he let himself realize he had made it. Then he began looking for the men who should have seen his approach and be coming to question him.

There was no sound of steps or of any other activity, except for his own movements. Nor was there any light from the bulbs above him. The only illumination was from a thick quartz port that faced directly into the sun.

Sam cut on the lamp built into his chest, and began sweeping the sections of the hub with its light. Dust had formed a patina here, too. He sighed softly into the air. Then he moved toward the outer sections, his step determined.

Half-way down the tube that ran from the hub to the outer hull, Sam stopped and cut off his light. Ahead of him there

was a glow! Lights were still burning!

He let out a yell to call the men and began running, adjusting for the increasing feeling of weight as he moved outward. Then he was under the bulb.

He stared up at it—a single bulb burning among several others that were black, though they were on the same circuit. How long did it take for these bulbs to burn out? Years surely, and probably decades. Yet most of the station was in darkness, though there was still power from the atomic generator.

He found a few other bulbs burning in the outer station, but not many. The great reception and recreation room was empty. Beyond that, the offices were mostly open and vacant. Some held a litter of paper and other stuff, as if someone had gone through carelessly, not bothering to put anything back in place. The living section with its tiny sleeping cubicles was worse. Some of the rooms were simply bare, but others were in complete disorder. Four showed signs of long occupancy, with the sleeping nets worn almost through and not replaced. But nothing showed how recently they had been left.

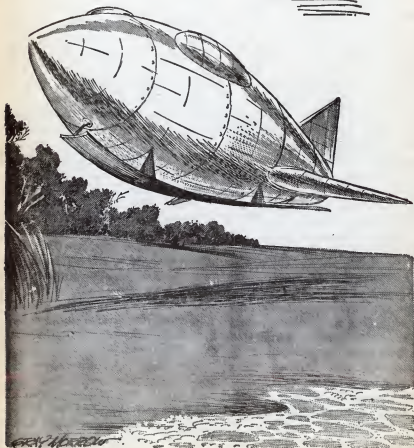
He went through another section devoted to station machin-

ery and came to a big room that was apparently now used for storage. Sam had seen a plan of the station in one of the older books in the dome. He placed this room as one designed as a storage for hydrogen bombs once. But that had been from the pre-civilized days of men, and the bombs had been dismantled and destroyed more than sixty years before.

It was in the hydroponics room that he was forced to face the truth. The plants there had been the means of replacing the oxygen in the air for the men, and now the tanks were dry and the vegetation had been dead so long that only dessicated stalks remained. There could be no men here. He didn't need the sight of the bare food section for confirmation. Some men had stayed here until the food was gone before they left the untended plants to die. It must have been many years ago that they had abandoned the station.

Sam shook his head in anger at himself. He should have guessed it when he saw that there were none of the winged rocket ships waiting outside the station. So long as men were here, they would have kept some means for return to Earth.

The observatory was dark, but there was still power for the electronic telescope. The screen



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lighted at his touch, showing only empty space. He had to wait nearly two hours before the slow tumble of the station brought Earth into full view.

Most of it was in daylight, and there was only a thin cloud cover. Once a thousand cities could have been scanned plainly from here. When seeing was best, even streams of moving cars could be seen. But now there were no cities and no signs of movement!

Sam emitted a harsh gasping sound as he scanned the continent of North America. He had seen pictures of New York, Chicago and several other city complexes from this view. Now there was only dark ruin showing where they had been. It came to him with an almost physical shock that perhaps millions of human beings had died in those wrecks of cities.

There were still smaller towns where he could make out the pattern of houses. But there was no movement, even there.

He cut power from the telescope with an angry flick of his finger, trying to blot the things he had seen from his memory. A moment later, he had power on again and was hunting down roadways and rivers for signs of movement. But there was no evidence of man. And all of the ruins looked old and weathered, as if there had been no man to

fight on for a great many years.

He sagged against the telescope, his mind filled with pictures he could not control. Great ships ravaging out of space, carrying savage alien monsters and bringing planet-wrecking rays against Earth. There had been no Lens, no miracle to save Earth. There had been only the ruin of all man's achievements. And man had been gone before Sam had finished his first year of waiting.

He shook off his imaginings by force of will. There had been men here on the station. They must have left some records.

He moved rapidly away from the observatory, hunting for the communications section. It was in worse shape than most other places when he found it. It looked as if some man had deliberately tried to wreck the machinery. A hammer lay tangled in a maze of ruin that must once have been the main receiver. There was something that looked like dried blood on a metal cabinet, with a dent that might have fitted a human fist.

The floor was littered with tape that should have held a record of all the communications received and sent, and the drive capstan on the tape player was bent into uselessness. Sam lift-

ed a section of tape and placed it in the slot that gave his face a sad caricature of a mouth. The tape sensors moved into place, and he began scanning the bit of plastic. It was blank, probably wiped of any message by time and the unshielded transformer that was still humming below the control panel.

Most of the tape cabinet was empty, and there was nothing on tapes within. Sam ripped open drawers, hunting for some evidence. He finally found a single tape in the cabinet dented by a fistprint, lying at the back with the reel broken as if it had been hurled savagely into the drawer. Most of the impression on the tape was a garble of static; stray fields had gotten to it, even through the metal of the cabinet. But towards the end, a few words could barely be picked out from the noise.

"... test chambers here away from the blast... Thought we'd made it... a starving... went mad. Must have been a nerve aerosol, but it didn't settle as... Mad. Everywhere. Southern hemisphere, too. Your men who came down here didn't have a chance... Took a chance after I heard your broadcasts, but finding a transmitter was diffi... Weeks. Now I'm the last survivor. I must be. For God's sake, stay where you are! Don't..."

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The noise grew worse then, totally ruining intelligibility. Sam caught bits of what might have been sentences, but they made no sense to him; they seemed to be pure gibberish. Then suddenly a small section of the tape against the hub became almost clear.

The voice was high-pitched now, and overmodulated, as if the words had been too loud to be carried by the transmitter. There was a strange, unpleasant quality that Sam had never heard in a human voice before.

"... all shiny and bright. But it couldn't fool me. I knew it was one of them! They're waiting up there, waiting for me to come out. They want to eat my soul. They're clever now, they won't let me see them. But when I turn my back, I can feel..."

The tape came to an end.

Sam could make no sense of it, though he replayed it all again in hopes of finding some other clue. He gave up and reached down to shut off the power in the transformer. It was amazing that the wreckage hadn't already blown all the fuses for this section. He groped for the switch and flipped it, just as his eyes spotted something under the transformer shelf.

It was a fountain pen, gold and black enamel.

Sam had seen one like it countless times, and now he

turned it over in his hands, to see familiar lettering engraved on the barrel: *RPS*. Those were the initials of Dr. Smithers, and the pen could only have been his. He'd been one of those who had reached the station, probably one who had waited there to receive that strange message from Earth. The Moon ships had made it safely, and Smithers had stayed on here until the food was gone. Then he must have returned to Earth where the tape indicated at least one man still survived, after the attack was over.

The telescope had showed no sign of men. But if there were only a few men left on the immense face of the planet below, the chance of finding any evidence of them was too slight to determine.

The search must be made from the surface of Earth, not from this useless station in the sky.

In theory, getting back to Earth from the station wasn't too difficult. A small retro-thrust from a rocket could slow its speed and change its orbit enough to bring it down to the atmosphere. Then any winged craft with shallow enough an angle of glide could be maneuvered down slowly to avoid burning from the friction of the air.

There was more than enough sheet metal in the sheathing of the station to provide modifications to the little ferry, and there were books that showed most details of the design of the regular landing craft. There was even enough fuel; the emergency tanks in the station were half filled with the monopropellant suited for the little rocket motor in the ferry.

Sam had allowed himself perhaps a month to complete the task. But at the end of that time, he was swearing, using unprofane but colorful words he had learned from a score of historical novels. By then he was beginning to realize that the gap between theory and practice was enormous. He would be lucky to finish his work in a year, and then the results would be crude and uncertain.

The sheet metal was already all work-hardened, and there was no annealing oven to prepare it for reshaping. There was no press or large sheet metal brake in the tiny shop provided in the station. Even the welders were designed only for small repair. No transformer was suitable for constructing a larger welder, and he was forced to re-wind one of the power cores, hoping that it would carry the amperage he needed.

It took two weeks of hard work

to draw in the ferry, tie it down firmly to the hub against the wobbling of the station, and construct a crude scaffolding around it. Then he discovered that the hub was in the shadow of the station too much of the time, making metal there brittle with cold. The whole job had to be undone, the ferry moved to the top of the station and the entire scaffolding rebuilt.

The framework for his wings, controls and nose cone had to be built up by welding together a network of small plumbing pipes; they were too heavy and he was forced to build another framework through the walls of the ferry and across most of the small cabin. It left him barely room for himself. Then he discovered by bitter trial that there was no way to form the sheet metal around the frame without so much welding that air turbulence would have made atmospheric maneuvering quite impossible.

He finally was forced to hand form his wing covering on a crude mold built on the main deck of the station, fighting to force the sheets into their proper curves by repeated careful hammering. When finally finished, they were too large to move through the halls, and he was forced to cut a new path out through the station. It was made

possible only because he had no need of air to breathe.

Even the fuel turned out to be a problem. Thirty years of sitting in the tanks had started a slow process that resulted in small tarry filaments throughout. Pint by slow pint, it had to be filtered and refiltered until it was clear enough to pass through the tiny nozzle of the injector on the motor. By then he knew it would have been simpler to centrifuge it. But at last it was done.

VI

Surprisingly, the modified ferry behaved far better than Sam had dared to hope. It heated badly at the first touches of atmosphere, but the temperature remained within the limits he and the craft could stand. He learned slowly to control the descent to a glide neither too shallow for stability nor too steep to avoid overheating. By the time he was down to thirty miles above the surface, he was almost pleased with the way it handled.

He had set his course to reach the underground creche that had been his home at awakening and during the first three years of his education, before they sent him to the Moon. It was the only home he knew on Earth.

Now he saw that he could never make it. The first fifteen minutes in the upper layers of atmosphere had been at too steep a glide angle, and he could never reach far inland. He might even have trouble reaching the shore at all, he realized; when the clouds thinned, he could see nothing but ocean under him.

He opened the rocket motor behind him gently, letting its thrust raise his speed to the highest his little craft could take at this altitude. But there was too little fuel left to help much. It might have given him an extra twenty miles of glide, but not more.

Sam considered the prospects of landing in the water with grim foreboding. He could exist in it for a while, even at fair depths. If he landed near the shore, he might work his way out. But within a limited period of time, the water would penetrate through his body to some of the vital wiring. Once that was shorted, he would cease to exist.

He came down under the clouds, fighting for every inch of altitude. Then, far ahead, he could see the shore. There were no islands here, so it had to be the mainland. Once there, he could reach the creche in a single day.

He passed over the shoreline at a height of five hundred feet.

There was a short stretch of sand, some woods, and then a long expanse of green that must be grass. He eased the control forward, then back again.

The little ship came skimming down at two hundred miles an hour. Its skids touched the surface, and it bounced upwards. Sam fought the controls to keep it from nosing over. Again it touched, jerking with deceleration. This time it seemed to have struck right. Then a hummock of ground caught against one skid. The craft slithered sideways and flipped over. Sam braced himself as the ship began coming to pieces around him.

He pulled himself out, staring at the wreckage. It was a shame that it was ruined, he thought. But it couldn't be made as strong as he was and still glide through the air.

He turned to study the world around him. The grass was knee-high, moving gently in the wind. Beyond it lay woods. Sam had seen only pictures of trees like that before. He moved toward them, noticing the thickness of the underbrush around them. Below them, the dirt was dark and moist. He lifted a pinch to his face, moving his smell receptors forward in his mouth slit. It was a rich smell, richer than the stuff in the hydroponic

tanks. He lifted his head to look for the birds he expected, but he could see no sign of them. There were only insects, buzzing and humming.

The sun had already set, he noticed. Yet it was not yet dark. There was a paling of the light, and a soft diffusion. He shook his head. Above him, tiny twinkling spots began to appear. He had read that stars twinkled, but he had thought it only fiction. He had never been under the open sky of Earth before.

Then a soft murmur of sound reached him. He started away, to be drawn back to it. Slowly he realized it was a sound like the description of that heard near the sea. He had never seen an ocean, either. And now one lay no more than a mile away.

He stumbled through the woods in the growing darkness. For some reason, he was reluctant to turn on his light. Eventually he learned to make his way through the brush and around the trees. The sound grew louder as he progressed.

It was dark when he reached the seashore, but there was a hint of faint light to the east. As he watched, it increased. A pale white arc appeared over the horizon and grew to a large circle. The Moon, he realized finally.

The waves rose and fell, booming into surf. And far out

across the sea, the Moon seemed to ride on the waves, casting a silver road of light over the water.

Sam had read the word. Now for the first time, he found an understanding of it. This was Beauty.

He sighed as he heaved himself from the sand and began heading along the shore in search of a road that would take him westward. No wonder men wanted to come back to defend a world where something like this could be seen.

The moon rose higher as he moved on, its light now bright enough to give him clear vision. He came over a small rise in the ground and spotted what seemed to be a road beyond it. Beside the road was a house. It was dark and quiet, but he swung aside, going through a copse of woods to reach it and search for any evidence of humanity.

The windows were mostly broken he saw as he approached. And weeds had grown up around it. There was a detached building beside it that held a small car, by what he could see through the single dusty window. He skirted that and reached the door of the house; it opened at his touch, its hinges protesting rustily.

Inside, the moonlight shone through the broken windows on

a jumble of furniture that was overturned and scattered in no order Sam could see. And there were other things — white things that lay sprawled about on the floor.

He recognized them from the pictures in the books — skeletons of human beings. Two small skeletons were tangled in one corner with their skulls bashed in. A male skeleton lay near them, with the rusty shape of a knife shoved through a scrap of clothing between two ribs. There was a revolver near one hand. Across the room, a female skeleton was a jumbled pile of bones, with a small hole in the skull that could have come from a bullet.

Sam backed out of the room. He knew the meaning of another word now. He had seen Madness.

Men had learned to build good machines. The car motor barely turned over after Sam had figured out the controls, but it caught and began running with only a slight sputtering. The tires were slightly soft, but they took the bumps of the rutted little rail. Later, when Sam found a better road, they lasted under the punishment of high speed. Most of the road was clear. There were few vehicles along its way, and most of those

seemed to have drifted to the shoulder before they stopped or crashed.

The sun was just rising when Sam located the place where the factory and warehouse had served as a legitimate cover for the secret underground robot project. Fire and weather had left only gutted ruins and rusty things that had once been machines. But the section that housed the creche entrance now stood apart from the rest, almost unharmed.

Sam moved into it and to the metal door openly concealed among other such doors. He should probably not have known the combination, but men were often careless among robots. He had been curious enough to note the details, and Sam did not forget. He bent to what seemed to be an ornamental grille and called out a series of numbers.

The door seemed to stick a little, but then it moved aside. Beyond lay the elevator, and that operated smoothly at the combination he punched. Power was still on, at least. There was no light, but the bulbs sprang into life as he found a switch.

He called out once, but he no longer expected to find men so easily. The place had the feel of abandonment. And while it could have protected its workers from almost anything, there had been

only enough food and water stocked here for two weeks. There were a few signs that it had been used for a shelter, but most of it was still in very good order.

He moved past offices and laboratories toward the back. The real creche, with its playrooms and learning devices was empty, he saw. No robots had been receiving post-awakening training. Sam was not surprised. Most of the work here had been devoted to research or the possibilities of robots. Actual construction was only a necessary sideline. Usually the brain complexes had been created and tested without bodies, and then extinguished before there had been a full awakening.

He started toward the educator computer out of his old habits. But it was only a machine that had programmed his progress from prepared tapes and memory circuits. It could not help him now.

Beyond the creche lay the heart of the whole affair. Here the brain complexes were assembled from components according to esoteric calculations. This was work that required a computer that was itself intelligent to some extent. It had to make sense out of the desirable options given it by men, then form the brain paths needed,

either during construction or during the initial period before awakening. Everything that Sam had been before awakening had come from this. That pattern would still be recorded, along with what the great computer had learned of him during his return here five years before men abandoned the Moon.

Sam moved toward the machine, gazing in surprise at the amount of work lying about. There were boxes of robot bodies crammed into every storage space. They could never have been assembled in such numbers here during the period he remembered. And beyond lay shelves jammed with the components for the brain complexes. With such supplies, enough robots could be made to supply the Lunar Base needs for generations.

The computer itself was largely hidden far below, but its panel came to life at his touch. It waited.

"This is Robot Ninety-Three, Mark One," Sam said. "You have authorization on file."

The authorization from Dr. DeMatre should have been canceled. But the machine did not switch on alarm circuits. A thin cable of filaments reached out and passed into Sam's mouth slit. It retracted, and the speaker

came to life. "There is authorization. What is wanted?"

"What is the correct date?" Sam asked. Then he grunted as the answer came from the machine's isotope clock.

It had been more than thirty-seven years since the men had left the Moon. He shook his head, and the robot bodies caught his attention again. "Why are so many robots being built?"

"Orders were received for one thousand robots trained to fly missiles. Orders were suspended by Director DeMatre. No orders have been received for removing parts."

"Do you know what happened to the men?" Sam had little hope of finding an easy answer any more, but he had to ask.

The machine seemed to hesitate. "Insufficient data. Orders were given by Director DeMatre to monitor broadcasts. Broadcasts were monitored. Analysis is incomplete. Data of doubtful coherence. Requests for more data were broadcast on all frequencies for six hours. Relevant replies were not received. Request further information if available."

"Never mind," Sam told it. "Can you teach me how to fly a plane?"

"Robot Ninety-Three, Mark One, was programmed with established ability to control all

vehicles. Further instruction not necessary."

Sam grunted in amazement. He'd been surprised at how well he had controlled the landing craft and then the car. But it had never occurred to him that such knowledge had been built in.

"All right," he decided. "Start broadcasting again on all the frequencies you can handle. If you get any answers, find where the sender is and record it. If anyone asks who is calling, say you're calling for me and take any message. Tell them I'll be back in one month." He started to turn away, then remembered. "Finished for now."

The machine darkened. Sam headed out to find a field somewhere that might still have an operable plane. But he was already beginning to suspect what he would find.

VII

Grass grew and flowers bloomed. Ants built nests and crickets chirped in the soft summer night. The seas swarmed with marine life of most kinds. And reptiles sunned themselves on rocks, or retired to their holes when the sun was too hot.

But on all the Earth, no warm-blooded animal could be found.

The Earth of man was without

form and void. The cities were slag heaps from which radioactivity still radiated. No fires burned on the hearthstones of the most isolated houses. The villages were usually burned, sometimes apparently by accident, but often as if they had been fired deliberately by their owners.

The Moon was a thing of glory over Lake Michigan. It was the only glorious thing for six hundred miles. Four returned winged rockets rested on a field in Florida, but there was no sign of what had become of the men who rode down from the station in them. One winged craft stood forlornly outside Denver, and there was a scrawl in crayon inside its port that spelled the worst obscenity in the English language.

There was a library still standing in Phoenix, and the last newspaper had the dateline of the day when Sam had seen the lights brighten over the cities of Earth. Most of the front page was occupied by a large box which advised its readers that the government had taken over all radio communications during the crisis and would broadcast significant news on the hour. The paper was cooperating with the government in making all such news available by broadcast only. The same box appeared in

the nine preceding issues. Before that, the major news seemed to involve a political campaign in United South Africa.

Other scattered small libraries had papers that were no different. Yet the only clue was in one of those places. It was a piece of paper resting under the hand of a skeleton that was scattered before bound copies of a technical journal. The paper was covered with doodles and stained in what might have been blood. But the words were legible:

"Lesson for the day. Assign to all students. *Politics*: Men could not win such a war and that is obvious. *Chemistry*: Their nerve gas was similar to one we tested in small quantities. It seemed safe. Yet when they dropped it over us in both Northern and Southern hemispheres, it did not settle out as the test batches had done. *Proved*, that aerosols must be tested in massive quantities. *Medicine*: Bonny was in the shelter with me three weeks, yet there was still enough in the air to make her die in the ecstasy of a theophany. *Geography*: The wind patterns have been known for years. In three weeks, they reach all the Earth. *Psychology*: I am mad. But my madness is that I am become only cold logic without a soul. Therefore, I must kill myself. *Religion*:

Nothing matters. I am mad. God is —"

That was all.

The creche was still the same, of course. Sam sat before the entrance three nights after his return to his only home on Earth, staring at the Moon that was rising over the horizon.

It was a full Moon again, and there was beauty to it, even here. But he was only vaguely aware of that. Below him, the great computer was quiescent now. It had taken all the mass of tiny details he had gathered and had integrated them with all of the millions of facts it already knew. Such a job had taken time, even for such a machine. But a few hours after his return it called him over the radio frequencies to issue its report.

"All data correlated," was its announcement. "Data not fully coherent with previous data. Degree of relevancy approaches zero. Data insufficient for conclusion."

Then it had gone back to stand-by, while Sam had sought the sight of living plants and insects outside the creche.

He had expected little else from the computer. He had known there was too little for a logical conclusion.

But his own conclusion was drawn now. As he sat under the

light of the Moon, staring at the sky from which evil had come, there was a coldness in his brain complex that seemed deeper than the reaches of space.

Men were gone. He had faced that fact during the early days of his search, and now he was learning to live with it. There were no more of his creators. He would go on searching for them, of course, in the faint hope that a paltry few might have survived somehow, somewhere. But he was certain that the search would be in vain.

They had come from somewhere out there, he thought bitterly. The Eich, the minions of Boskone, or some other horror equally evil had appeared more than a century before and snooped and sniffed at Earth in their various saucers, only to leave. Now they had come back, giving Earth only a week's warning of their approach. They had struck all Earth with glowing bombs or radiation that ruined the cities of men. And when men still survived in spite of their rain of destruction, they had resorted to a deadly mist of insanity that was borne by the winds to every part of the planet. "They dropped it over us," the note had said. And the wonderful race Sam had known had died in madness, usually of some destructive kind.

There had not even been a purpose to it. *They* hadn't wanted the Earth for themselves. They had simply come and slaughtered, to depart as senselessly as they had departed before.

Sam beat his fist against his leg until the metal clanged through the night. Then he lifted his other fist toward the stars and shook it.

It was wrong that the alien invaders should escape from punishment.

They had come with fire and pestilence, and they should be found and overcome with all that they had meted out of mankind. He had supposed that evil was something found only in fiction. But now evil was ruler of the universe. It should be met as it was usually met in fiction. It should be wiped from existence in a suffering as great as it had afflicted. But such justice was apparently the one great lie of fiction.

He beat his fists resoundingly against his legs again and shouted at the Moon, but there was no relief for what was burning deep in him.

Then his ears picked up a new sound and he stopped all motion to listen. It came again, very weakly and from very far away.

"Help!"

TO AVENGE MAN

He shouted back audibly and by radio and was on his feet, running toward the sound. His feet crashed through the brush and he leaped over the rubble, making no effort to find the easy path. As he stopped to listen again, he heard the sound, directly ahead, but even weaker. A minute later he almost stumbled over the caller.

It was a robot. Once it had been slim and neat, covered with black enamel. Now it was bent and bare metal was exposed. But it was still a Mark Three. It lay without motion, only a whisper coming from its speaker.

Sam felt disappointment strike through all his brain complex, but he bent over the prone figure, testing quickly. It was power failure, he saw at once. He ripped a spare battery from the pack that had been with him during his long search and slammed it quickly into place, replacing the corroded one that had been there.

The little robot sat up and began trying to get to its feet. Sam reached out a helping hand, starting down at the worn, battered legs that seemed beyond any hope of functioning.

"You need help," he admitted. "You need a whole new body. Well, there are a thousand new

ones going to waste in the creche, ready for you to use. What's your number?"

It had to be one of the robots from the Moon. Men had never permitted any robots to remain on Earth.

The robot teetered for a moment, then seemed to gain some mastery over its legs. "Joe. They called me Joe. I'm glad I heard your signal over the radio weeks ago, but it was a long way. My transmitter is broken. I couldn't answer you. A long way, and I was afraid I would fail before I could reach here. But now hurry. We can't waste time here."

"We'll hurry. But that way," Sam told him, pointing toward the creche.

Joe shook his head, making a creaking, horrible sound of it. "No, Sam. He can't wait. I think he's dying! He was sick when I heard the call from you, but he insisted I bring him here. He—"

"Sick? Dying? There's a *man* with you?"

Joe nodded jerkily and pointed.

Sam scooped the light figure up in his arms. Even on Earth, it was no great load for his larger body, and they could make much better time than by letting the other try to run. Hal, Sam thought. It was probably

Hal. Hal had been the youngest. Hal would be only fifty-nine, or something like that. That wasn't too old for a man, from what he had learned.

He flicked his light on, unable to maintain full speed by the moonlight. The pointing finger of the other guided him down the slope to a worn, weed-covered trail. It was already more than five miles from the entrance to the creche.

"He was worried you might leave here before we could reach you," Joe explained. "He knew the month was almost up, and it might take too long for me to bring him. He ordered me to leave him and go ahead alone. Sometimes now it is hard to know whether he means what he says, but this was a clear order."

"You'd have been wiser to stick to the car and drive all the way with him," Sam suggested. He was forcing his way through a tangle of underbrush, wondering how much farther they had to go.

"There was no car," Joe said. "I can't drive one now. My arms sometimes stop working, and it would be dangerous to drive. I found a little wagon and dragged him behind me on that until we got here."

Sam took his eyes off the trail to stare at Joe's battered legs. Joe had almost worn out his

body. But in other ways, he must have developed a great deal since the days on the Moon. Time, experience and the companionship of men had shaped him far beyond what Sam remembered.

Then they were in a little hollow beside a brook, and there was a small tent pitched beside a cart. Sam released Joe and headed for the shelter. Moonlight broke through the trees and fell on the drawn suffering of a human face just inside the tent.

It took long study to find familiar features. At first nothing seemed right. Then Sam traced the jawline behind the long beard and gasped in recognition. "Dr. Smithers!"

"Hello, Sam." The eyes opened slowly, and a pain-racked smile stretched the lips briefly. "I was just dreaming about you. Thought you and Hal got lost in a crater. Better go shine up now. We'll want you to sing for us tonight. You're a good man, Sam, even if you are a robot. But you stay away too long out on those field trips."

Sam sighed softly. This was another reality he could recognize only from fiction. But he nodded. "Yes, Chief. It's all right now."

He began singing softly, the song about a Lady Greensleeves. A smile flickered over Smithers'

lips again, and the eyes closed.

Then abruptly they snapped open, and Smithers tried to sit up. "Sam! You really are Sam! How'd you get here?"

Joe had been fussing over a little fire, drawing supplies from the cart. Now he hobbled up with a bowl of some broth and began trying to feed the man. Smithers swallowed a few mouthfuls dutifully, but his eyes remained on Sam. And he nodded as he heard the summary of the long struggle back to Earth. But when Sam told of the landing, he slumped back onto his pad.

"I'm glad you made it. Glad I got a chance to see you again before I give up the last ghost on Earth. I couldn't figure that radio signal Joe heard. Knew it couldn't be a human call, but I never thought of you making it back to Earth. Should have had a brass band to welcome you."

He closed his eyes, but the weak voice went on. "Hal and Randy died. Pete suicided. I'm the only one left, Sam. We waited up in the station three years, guessing what had happened here. Then we came down and tried to find somebody — anybody — to start the race over. But there weren't any left. We covered every continent for thirty years. The robots got busted,

except for Joe here. Then we came back. And now I'm the last man. The last man on Earth heard a knock on the door — and it was Sam. It's a better ending on the story than I expected."

He slept fitfully after that, though Sam could hear him moan at times. It was cancer, according to what Joe knew, and there was no hope.

Somehow, Joe had found a hospital with its equipment intact and books to study. The robot had taken Smithers there and tried to treat him with the equipment, but it had been a losing battle. Then, when the message came, broadcast by the computer at Sam's orders, Smithers had insisted on leaving. They had no radio capable of answering, and little hope of finding a working transmitter in time, so Smithers had insisted they must come in person. In the hospital, the treatment might have given him a year more of life; but he had ordered Joe to leave, knowing that he might not survive the trip. And now only his will seemed to keep the man alive. Joe had a few drugs to ease the pain, but that was all the help that could be given.

During the long night, Joe told more of the long search for survivors. It had been thorough. But they had found no trace of

another living human being. The nerve gas had produced eventual death by nerve damage, as well as the initial insanity that had killed many.

"Who?" Sam asked bitterly. "What race did this?"

Joe made a gesture of uncertainty. "They talked about that. Mr. Norman told me about it, too. He explained that men killed each other off. One side attacked this side, and then our side had to hit back, until nobody was left. But I don't understand it."

"Do you believe it?"

"No," Joe answered. "Mr. Norman was always saying things I found he didn't really mean. No man would do anything like this."

Sam nodded, and began telling his theories. At first Joe was doubtful. Then the little robot seemed convinced. He dredged up small confirming bits of information from the long years of search. They weren't important by themselves, but a few seemed to add to the total picture. A sign cursed the "sky devils" in Borneo. There were odd bits from a sermon printed in Louisiana. And there were other vague hints at doom from beyond the Earth.

Twice during the long night Smithers awakened, but he was ir-

rational. Sam soothed him and sang to him, while Joe tried to give him nourishment that was loaded with morphine. Now even Sam could see that the man was near death. The pulse was thready and the breathing seemed too much for the worn body.

In the morning, however, Smithers was rational again. He managed a smile. "Man goeth to his long home, and the mourners won't go about the streets this time. There won't be any mourners."

"There will be two," Sam told him.

"Yes." Smithers thought it over and nodded. "That's good, somehow. A man hates not being missed. I guess you two will have to take on all the debts of the human race now."

His breath caught sharply in his throat, and he retched weakly. But he forced himself up on his elbows and looked out through the flap of the tent toward the hills that showed through the shrubbery and the blue of the sky beyond.

"There are a lot of debts and a lot of broken promises, Sam, Joe," he said. "Man had promised to write some great things into the future of this universe. He was going to conquer the stars and even make a better scheme for everything. But he failed.

He's finished. He dies, and the universe won't even know he's gone."

"We'll know," Joe said softly.

Smithers dropped back onto the pad. "Yeah. Maybe that helps. We had our faults, but I guess there must have been a lot of good in us, too—there had to be, if we could make two people like you. God, I'm tired!"

He closed his eyes. A few minutes later, Sam knew he was dead.

The two robots waited to be sure, and then wrapped the body in the tent and buried it, while Sam recited the scraps of the burial service he had picked up from his reading.

Sam sat down then where Smithers had died, staring at the world where no man would ever live again. And the knot in his brain complex grew stronger and colder. He could not see the stars in the light of the day. But he knew they were there. And somewhere out there was the debt Smithers had given him—a debt of justice that had to be paid.

Saucers, Boskone, the Eich—whatever they were, the evil alien monsters must be repaid to the last full measure for the foulness they had done and which man could no longer settle with them.

Anger and hate grew slowly in

him against the enemy from the stars, until he could no longer contain his emotions. His radio message was almost a scream as he roused the computer.

"You've got a thousand robot bodies waiting. Can you build brains for them, modelled after the records of my brain? Can you build them without the limits you used for later models? Do you have materials for that?"

"Such a program is feasible," the machine answered.

"Then start—" Sam began. But his eyes fell on the wreck of Joe's body, and he modified his order. "No, save one body to replace another robot I'll bring you. Start work at once on all the others."

"The program is begun," the machine agreed.

Nine hundred and ninety-nine should be enough. They wouldn't be just like him, Sam realized; DeMatre had said there was a random factor. But they would do. The first group could find raw materials for ten thousand more, and those for still more. There would be robots enough to study all the books men had left, and to begin the long trip out into space.

This time, there would be more than a tape education for them. Sam would be there to tell them the story of man, the glory of the race, and the savage treach-

ery that had robbed the universe of that race. They would learn that the universe held an enemy, a race of technological monsters that must be sought among the stars and exterminated to the last individual.

They would comb the entire galaxy for that enemy if they had to. And someday, mankind's debt of justice would be paid. Man would be avenged.

Sam looked up at the sky and foreswore all robots for all time to that debt of vengeance.

IX

Hate spewed across the universe in a high crusade. Metal ships leaped from star to star and hurtled across the immensities between the far-flung galaxies. The ships spawned incessantly, and with each went the holy image of their faith and the unsated and insatiable hunger of their hate.

A thousand stars yielded the dead and ancient wreckage of races that had once achieved technology. Five hundred suns gave light to intelligent races—quiet, peaceful races with backward cultures. The great ships dropped onto their worlds and went away again, leaving peoples throughout the galaxies filled with gratitude and paying homage to the incredibly beautiful

images of the supernal being called Man. But still the quest went on.

In a great temple palace on the capital world of the Andromeda Galaxy, Sam stared down at a long table piled with little scraps of evidence. One graceful finger of his lithe seventeenth body stirred some of the scraps and he bent closer to read what was left of the ancient writing. Then he looked up and across at the great scientist who had just returned from the ancient mother world of Earth, incredible light-years away.

"That is how the human race died?" Sam asked quietly. "You are quite sure?"

The scientist nodded. "Quite sure. Even with a hundred million workers, it took us fifty years to gather all this on Earth. It has been so badly scattered, so nearly ruined. But no truth from the past can be completely concealed from our present methods of research. Man died as I said."

Sam sighed softly and moved to the window. Outside it was summer, and the trees were in blossom, competing with the bright plumage of the birds brought from far Deneb. The gardens were a poem of color. He bent forward, sniffing the blended fragrance of the flowers. Strains of music came from the

great Hall of Art that lifted its fairy beauty across the park. It was the eighth opus of their greatest living composer—an early work, but still magnificent in its reach and its ambition.

For the moment his shoulders slumped faintly. His emotions blended with the half-bitter memories of other discoveries. There had been the first visit to Mars—a Mars where no John Carter could ever have fought green men for the hand of the incredible Dejah Thoris. There had been star after star, with no friendly Arisians, no gallant dragon-folk to join against the undiscovered menace of Boskone. And for a thousand years, as fiction paled before reality, there had been the growing doubt in his mind. Now the last effort to make himself believe the legend he had created was spent.

"There is no Enemy now," the scientist said from behind him. "There can be no doubt. Man was his own destroyer. He killed himself. In a sense, his race was the one we are sworn to kill."

Sam leaned further out the window. Below, the throng of busy, laughing people looked up at him and cheered. There were a dozen races in the park, mingled with a majority of his people. He smiled and lifted his hand to them, then bent further

out, until he could just see the great statue of Man that reared heavenward over the central part of the temple palace. He sighed again and inclined his head, before backing from the window.

"How many know this besides you, Robert?" he asked.

"None. It was gathered in too small fragments, until I could assemble it into a meaningful pattern."

Sam smiled at him. "Your work was well done, and there will be ways to reward you for it properly. But now I suggest that we burn this evidence."

"Burn it!" Robert's voice rose. "Burn this evidence and shackle our race to superstition forever? Our entire lives have been shaped to fit a cult of vengeance. Now we can free ourselves. This is our heritage, Sam — we can be ourselves!"

Sam ran his finger through the evidence again. There was pity in his mind for the scientist, but more for the strange race of man whose true nature had finally been revealed in fact. Man had missed owning the universe by so little! But the fates of that universe had conspired against him. The fates had offered two roads to intelligence. In one, there was the quiet growth that led to pastoral life and gentle pleasures, but somehow never got beyond its native planet. In

the other, chosen by man, intelligence grew from the aggressions of savagery and thrust the race ahead to great discoveries—while building the means to the inevitable final aggression that must destroy itself utterly.

Man had failed, like all other races grown from killing strains of animal life. But in dying, he had passed on part of his soul to another race that had been designed without his mighty passions. Somehow he had passed on the driving anger of his spirit of his true children, the robots.

And they had carried on.

The robots had been a created race, a race designed only to serve, able to live in perfect peace and without ambition. They had owned no heritage. But through an accident of fiction and a few dying words, men had left them a rich heritage.

Anger had carried them throughout the stars, and hatred had bridged the spaces between the galaxies.

"You're mistaken, Robert," Sam said. "Vengeance is our heritage. Burn the evidence."

Most of the material was tinder dry, and it caught fire at the first spark. For a few seconds, it was a seething pillar of flame. Then there was only a dark scar on the wood to show the true death of man.

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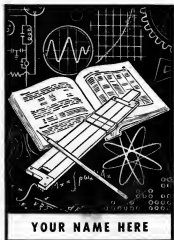
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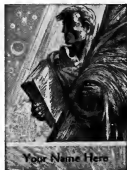
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